



## Memorandum

**To:** ALL EMS Providers  
ALL Hospitals and Healthcare Systems  
ALL Public Health Agencies  
ALL Emergency Management Agencies

**From:** Douglas Havron, RN, BSN, MS  
Executive Director & CEO

**Date:** December 21, 2021

**RE: Mass Critical Care Guidelines for Adult Hospital and ICU Triage**

During the onset of the COVID-19 pandemic in early 2020, local medical leaders began reviewing a framework of guidelines that could be used to create decision-making tools for adult hospital and ICU triage should unforeseen events have an extended impact, exceeding the capacity of our emergency response and healthcare network.

As part of regional disaster preparedness activities, local healthcare coalitions began evaluating those guidelines with members, including hospitals and other healthcare entities, prehospital providers, emergency management agencies, and public health agencies, throughout our 29-county region. The evaluation process included discussions among our stakeholders, outside experts, and local health authorities, including five regional stakeholder meetings.

In October 2021, the healthcare coalition completed its review of the guidelines endorsed by the U.S. Health and Human Services' Office of Civil Rights and used by our colleagues in North Texas since 2010. Public comments were accepted and reviewed through November 2021 and the guidelines were adopted by consensus in December 2021.

Please find attached the adopted Mass Critical Care Guidelines for Adult Hospital and ICU Triage for our regional healthcare preparedness program.

While we hope the guidelines never need to be implemented, we strongly believe that our community is best served by having them in place to provide an ethically sound, clinically objective, practical, non-discriminatory, and transparent triage guidance for the allocation of limited medical resources in the event of a mass critical care situation during which the demand for hospital and critical care services exceeds supply.

# Mass Critical Care Guideline for Adult Hospital and ICU Triage

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Produced by the North Texas Mass Critical Care  
Guideline Task Force in cooperation with



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
**Office for Civil Rights**

**PURPOSE:**

- To provide an ethically sound, clinically objective, practical, non-discriminatory, and transparent triage guideline for allocation of limited medical resources in the event of a mass critical care situation during which the demand for hospital and critical care services exceeds supply.

**Basic Premises:**

- The overall goal is to save as many lives as possible. When a patient is so ill due to any cause that survival to hospital discharge is unlikely, it is not reasonable to allocate scarce life sustaining resources to that patient. Such patients will be triaged to supportive palliative care or hospice care, allocating the scarce life sustaining treatment to patients judged more likely to survive to discharge.
- **Non-discrimination:** Each patient will receive medical treatment delivered with respect, care, and compassion and without regard to basis of race, ethnicity, color, national origin, religion, sex, disability, veteran status, age, genetic information, sexual orientation, gender identity, or any other protected characteristic under applicable law. Further, medical treatment should not be allocated under this Guideline based on the patient's ability to pay, insurance status, socioeconomic status, immigration status, incarceration status, homelessness, past or future use of resources, perceived self-worth, perceived or assessed quality of life, or weight/size.
- **Reasonable Accommodation:** Take appropriate steps to accommodate and provide individuals with disabilities meaningful access and an equal opportunity to participate in, or receive the services and benefits under this Guideline, as required by hospital policy, and in accordance with the Department of Health and Human Services Office of Civil Rights guidance<sup>1</sup>. Reasonable accommodation may include, but is not limited to the following:
  - Providing effective communication with individuals who are deaf, hard of hearing, blind, have low vision, or have speech disabilities through the use of qualified interpreters, picture boards, and other means;
  - Providing meaningful access to programs and information to individuals with limited English proficiency through the use of qualified interpreters and through other means;
  - Making emergency messaging available in plain language and in languages prevalent in the affected area(s) and in multiple formats, such as audio, large print, and captioning, and ensuring that websites providing emergency-related information are accessible;
  - Addressing the needs of individuals with disabilities, including individuals with mobility impairments, individuals who use assistive devices, auxiliary aids, or durable medical equipment, individuals with impaired sensory, manual, and speaking skills, and individuals with immunosuppressed conditions including HIV/AIDS in emergency planning;
  - Respecting requests for religious accommodations in treatment and access to clergy or faith practices as practicable.
- **Patient Ventilator/Equipment:** Hospitals may not re-allocate a personal ventilator (or a ventilator brought by the patient to the facility at admission to continue the patient's personal use).
- **Hospital Policies:** This Guideline should be read in concert with current hospital policies, procedures, and/or Guidelines. Implementing facilities may consider adding direct references to relevant policies.
- **Guideline prerequisites:** This Guideline should be used only in genuinely extraordinary situations in which the demand for services overwhelms supply and when activated by appropriate governmental and/or institutional authorities.
- **Guideline application:** Whether applied by individual treating clinicians, clinical triage committees, or clinical triage officers, this Guideline requires assessment of each patient's treatment preferences and likelihood of survival, giving priority to likelihood of survival to hospital discharge with treatment.

<sup>1</sup>For COVID-19 please refer to the Office of Civil Rights, BULLETIN: Civil Rights, HIPAA, and the Coronavirus Disease 2019 (COVID-19), <https://www.hhs.gov/sites/default/files/ocr-bulletin-3-28-20.pdf>.

- **Physician judgment:** Application of this Guideline is primarily a physician responsibility and must include: 1) a physician's reasonable medical judgment based upon an individualized assessment of each patient's treatment preferences and survival likelihood based on best available, relevant, and objective evidence; and 2) as-needed modification and accommodation of this Guideline and any tools the physician might select to support reasonable medical judgment based on the individual patient's clinical circumstances including any disabilities and/or chronic conditions the individual may have.
- **Patient treatment preferences:** Patient values and preferences related to life sustaining treatment should be assessed with the patient (or surrogate decision-maker if patient is unable to communicate), if feasible. If the patient is unable to communicate and is judged to be terminally or irreversibly ill, patient treatment preferences as expressed in an advance directive [Directive to Physicians/Living Will, Medical Power of Attorney, Out of Hospital DNR (unless pregnant)] or other clear evidence indicating the patient prefers a "comfort only" treatment approach should be given strong consideration. Physicians must be careful not to exert pressure on patients or surrogate decision-makers to decline life sustaining treatments in the process of discussing advance care planning decisions or to make particular advance care planning decisions for the good of the provider or due to judgments regarding quality of life or relative worth. Providers must provide information on treatment options, including both "comfort only" and continued life sustaining treatment, as long as the treatment option is medically appropriate based upon reasonable medical judgment and current medical evidence. Physicians may not require patients to complete advance directives and may not issue blanket Do Not Attempt Resuscitation ("DNAR") orders for reasons of resource constraint, except as consistent with or allowed by Texas law.
- **Likelihood of survival:** For purposes of this Guideline, likelihood of survival primarily means the physician's reasonable medical judgment about survival to hospital discharge. This relies on clinician judgment of the patient's risk of dying even with disease modifying treatment during the current acute care hospitalization. This clinician judgment should be informed as much as medically reasonable by objective clinical parameters and should not consider perceived quality of life or age. A physician's reasonable medical judgment about likelihood of survival may be further informed by one or more clinical assessment/prognostic tools including but not limited to: SOFA or MSOFA<sup>2</sup>, APACHE score, Simplified Acute Physiology Score (SAP), TNM cancer staging, Palliative Performance Scale (PPSv2), Karnofsky Performance Status (KPS), Eastern Cooperative Oncology Group (ECOG) score, BODE Index, NYHA Functional Class, the Seattle Heart Failure Model, various proprietary artificial intelligence based tools a clinician might have access to when approved for use in the facility where the patient is being treated, eligibility for additional treatments if indicated for other conditions following COVID-19 treatment such as bone marrow or solid organ transplants, LVAD as bridge or destination therapy, dialysis, and more. The decision to utilize any specific clinical assessment/prognostication tool is solely at the discretion of the responsible treating physician(s) and may change over time as patient characteristics and/or clinical science changes. No matter the clinical criteria utilized, clinical trajectory over time is often more important than any single point in time criteria. If one patient's likelihood of survival is declining more rapidly than the other patient needing the same limited resource, the limited resource should be assigned to the patient with the less rapid rate of decline. Additional survival beyond hospital discharge may only be considered after all clinical factors related to achieving hospital discharge have been considered, and the likelihood of survival to hospital discharge is, in reasonable medical judgment, the same for two (2) patients but treatment is available only for one. This is hopefully a rare situation, but if it occurs, consideration may only be given to the short-term post-hospitalization survivability of the patient, provided neither disability, age, nor perceived quality of life are part of that consideration. In all cases, clinical judgment about survival should be based upon an individual patient assessment including reasonable modification of any clinical assessment/prognostic tool(s) utilized as necessary to accommodate for patients with a disability, and in line with the principles of non-discrimination outlined above.
- **No categorical exclusions:** Neither this Guideline nor the tools referenced are intended to create any categorical exclusions from life sustaining treatment. However, a patient may have an advance directive (Directive to Physicians/Living Will, Medical Power of Attorney, Out of Hospital DNR) or other clear evidence indicating the patient prefers a "comfort only" treatment approach if the patient is, in reasonable medical judgment, terminally ill and unable to express her or his wishes.

<sup>2</sup>Many clinical prognostic assessment tools are better validated for some conditions than others. For example, SOFA or MSOFA are best validated in the setting of sepsis with multi-organ system failure and may have less utility as a supplement to physician judgment in isolated single organ lung failure from an infectious disease like COVID-19. < [https://nam.edu/wp-content/uploads/2020/12/csc-issue-summary\\_updated.pdf](https://nam.edu/wp-content/uploads/2020/12/csc-issue-summary_updated.pdf) >

- **No consideration of resource intensity:** Neither this Guideline nor the tools referenced are intended to allow for consideration of a patient's use of resources or duration of need. This Guideline favors saving as many lives as possible and patients with better likelihood of survival; thus resource intensity and duration are likely to be increased. The need for increased resource intensity not only during hospitalization but in the post hospitalization time frame should be planned for accordingly by responsible parties.
- **No consideration of perceived quality of life:** Quality of life may not be used as a consideration in resource allocation decisions except as consistent with patient treatment preferences and in accordance with Texas law.
- **Triage priority:** Optimally, intensive treatment should be provided to every patient who meets treatment inclusion criteria, but if demand exceeds supply, triage first according to the clinician, triage committee, or triage officer's reasonable medical judgment based upon objective clinical criteria as outlined above about survival to hospital discharge. Consultation across specialties, including but not limited to critical care, infectious disease, hospital medicine, surgical, palliative medicine, and other subspecialties relevant to serious illness care is useful in refining clinical judgment and sharing the burden of decision making. If the hopefully rare circumstance arises in which likelihood of survival to hospital discharge is, in reasonable medical judgment, the same for two (2) patients, but treatment is only available for one, a secondary triage decision may be made. If one patient's clinical trajectory is declining more rapidly than the other patient needing the same limited resource, the limited resource should be assigned to the patient with the less rapid rate of clinical decline, and thus the greatest prospect of survival. If the rare circumstance arises in which the physician's reasonable medical judgment is that both the likelihood of survival to hospital discharge and the rate of clinical decline are the same for two (2) patients, but treatment is only available for one, a decision may be made favoring the patient with the more favorable short-term post-hospital survivability, as long as this is not based on any of the factors listed in the non-discrimination premises of this Guideline.
- **Guideline application and appeals:** Individual hospitals may select different methods for applying this Guideline in a manner they feel best allows Guideline compliance to save lives, promote transparency, and prevent discrimination. This includes application of this Guideline by 1) treating clinicians at the bedside (may include emergency medicine, critical care, infectious disease, and/or hospitalist physicians); 2) clinical triage committees; and/or 3) clinical triage officers. Whichever method is used, application monitoring, support for those engaged in application, and an appeals process should be provided. Appeals process means that a member of the clinical treatment team, the patient, or the patient's surrogate decision-maker may appeal.
- **Application by bedside clinicians:** If a hospital chooses application initially by bedside clinicians, those clinicians will complete the basic assessment of patient preferences, likelihood of survival, including if necessary clinical trajectory and then make the triage decision supported by the best available objective clinical evidence as outlined above. Bedside clinicians may seek consultation from a clinical triage committee or clinical triage officer for assistance in applying this Guideline. If a member of the clinical team or triage committee learns that a patient, surrogate decision-maker or another member of the clinical team disagrees with a decision made pursuant to this Guideline, an appeal process should be available to a clinical triage committee or clinical triage officer who will have the authority to make the final decision unless further appeal is requested to a hospital or health care system clinical ethics committee or triage review committee, established specifically for the task of triage review.
- **Application by a clinical triage committee or clinical triage officer:** If a hospital chooses application initially by a clinical triage committee or officer, the clinical triage committee or clinical triage officer may obtain information from the bedside clinicians and/or medical record, including information relating to patient preferences and the likelihood of survival, and, if necessary, clinical trajectory. The clinical triage committee or clinical triage officer will then make the triage decision(s) supported by the best available objective clinical evidence, as outlined above. If a member of the clinical treatment team, a patient, or surrogate decision-maker informs another member of the clinical treatment team, a member of the clinical triage committee or clinical triage officer, or the Chief Medical Officer, they disagree with the triage decision made pursuant to this Guideline, an appeal process should be available to a hospital or healthcare system triage review committee or clinical ethics committee, established specifically for the task of triage review, who has the authority to make the final decision.
- Under a declared state of emergency, the governor maintains the authority to supersede healthcare regulations or statutes that may come into conflict with this Guideline.

New clinical information may emerge over the course of the pandemic, and this Guideline may be modified accordingly, if feasible. To the extent the federal, state or local government issues laws, regulations or Guidelines regarding triage of patients or assignments of ICU beds and ventilators, this Guideline may be modified to comply with those federal, state or local laws, regulations or Guidelines. If an objective, validated pandemic or other mass critical care specific scoring system which more accurately predicts survival than current tools becomes available, this may be used in place of the MSOFA/SOFA based scoring system an/or other tools referenced in this Guideline, provided that the new scoring system aligns with the basic non-discrimination premises of this Guideline.

#### Scope:

This Guideline applies to \_\_\_\_\_ (the hospital) and all healthcare professionals and staff working at the hospital.

The Adult Guideline applies to all patients 14 years and older.

#### When activated:

This Guideline should be activated in the event the governor declares a pandemic respiratory crisis or other public health emergency that has the potential to overwhelm available intensive care resources and implemented when the hospital and surrounding healthcare community reaches Level 3 Crisis Standard of Care.

During a Crisis Standard of Care, the hospital in conjunction with its medical staff will use this Guideline to allocate scarce resources in a manner that respects the human dignity of each patient and saves as many lives as possible.

#### Hospital planning:

Individual hospitals have variable characteristics and thus may select different methods for applying this Guideline in a manner that best allows compliance to save lives, promote transparency, and prevent discrimination.

#### Each hospital should:

- **Establish a clinical triage committee and/or clinical triage officer.** A clinical triage officer should have expertise in emergency medicine, critical care, or hospital medicine and may have experience in clinical ethics. For a committee, consider a team of at least 3 individuals, at least 2 of whom should be physicians, including an intensivist and 1 or more of the following: the hospital medical director, a nursing supervisor, a board member, a member of the hospital ethics committee, a pastoral care representative, a social worker, and 1 or more additional physicians. If a hospital has decided to vest primary or initial application of this Guideline to the clinical treatment team, then a clinical triage committee may provide either consultation to treating physicians at the bedside or make treatment decisions in the setting of an appeal of a triage decision made by the clinical treatment team. Alternatively, a hospital may decide to vest primary or initial application of this Guideline to the clinical triage committee and/or clinical triage officer.
- **Establish a triage review or clinical ethics committee or officer** to monitor and review 1) clinical treatment team decisions or 2) clinical triage committee or clinical triage officer decisions, and to serve as appeal process when requested by the patient, surrogate decision-maker, or the clinical treatment team.
- **Establish an appeal process** to review appeals to the decisions made under this Guideline by a member of the clinical treatment team, patients, and surrogate decision-makers.
- **Communication of triage decisions** may be completed by 1) a member of the clinical treatment team, 2) a member of the clinical treatment team in conjunction with a member of the clinical triage committee, the clinical triage officer, a member of the clinical triage review or clinical ethics committee, or 3) the hospital Chief Medical Officer or designee. Supportive palliative care consultation is strongly encouraged as early as possible, especially when the likelihood of survival to hospital discharge is deemed low and/or when possible withdrawal of non-comfort treatment is being considered.
- **Institute a supportive and/or palliative care team** to provide symptom management, counseling, and care coordination for patients, and support for families of patients who do not receive intensive care unit services.
- Establish a method of providing **peer support and expert consultation** to clinicians making these decisions.

## OVERVIEW OF CRISIS OF CARE CONTINUUM

### Conventional Standard of Care Level 1

- The conventional standards of care are followed. The hospital may need to call in additional staff, but has sufficient supplies and equipment, either at hand or available to it.
- As the threat of activation of the triage protocol increases, the federal, state or local government may consider cancelling elective surgeries/procedures. If not, the hospital may consider cancellation of elective surgeries/procedures that require a back-up option of hospital admission and/or ventilator support.<sup>3</sup>
- Note: In the event of a severe and rapidly progressing pandemic, start with Level 2 Contingency Standard of Care.

### Contingency Standard of Care Level 2

- Conventional standards of care may be minimally impacted. The scarce resources at the hospital can expand to accommodate the surge above its baseline capacity through internal and external resources. The hospital may need to repurpose physical space to accommodate patients.

### Crisis Standard of Care Level 3

- The hospital has implemented altered standards of care as demand for scarce resources (for example, ICU beds, ICU ventilators and staff) exceeds internal and readily available external resources. The hospital may need to activate its triage committee.
- Hospital staff absenteeism may be so severe as to become a rate limiting factor leading to Level 3 Crisis Standard of Care.

<sup>3</sup>Cancellation of surgeries should be done in accordance with the Basic Premises including providing individual patients reasonable accommodations as needed.

## HOSPITAL SETTINGS

## Contingent Interventions by Level of Care

## Crisis Care Continuum

Conventional Standard of Care  
Level 1:

1. Preserve bed capacity by:
  - Consider delaying/cancelling any elective surgery that would require postoperative hospitalization.<sup>4</sup>
  - Note: Use standard operation and triage decision for admission to ICU because resources are adequate to accommodate the most critically ill patients.
2. Preserve oxygen capacity by:
  - Phasing out all non-acute hyperbaric medicine treatments.
  - Ensuring that all liquid oxygen tanks are full.
3. Improve patient care capacity by transitioning space in ICUs to accommodate more patients with respiratory failure.
  - Control infection by limiting visitation (follow hospital infection control plan), consistent with any federal, state, or local government laws, regulations, or rules.<sup>5</sup>

Contingency Standard of Care  
Level 2:

1. Preserve bed capacity by:
  - Delaying/cancelling category 2 and 3 elective surgeries unless necessary to facilitate hospital discharge.
2. Improve patient care capacity by implementing altered standards of care regarding nurse/patient ratios and expanding capacity by adding patients to occupied hospital rooms.
3. Institute a supportive and/or palliative care team to provide symptom management, counseling and care coordination for patients, and support for families of patients who do not receive intensive care unit services.

Crisis Standard of Care  
Level 3:

1. Alternative Standard of Care is implemented by hospital and community to allocate scarce resources. The clinical triage committee/clinical triage officer may be activated.
2. Preserve bed capacity by limiting surgeries to patients whose clinical condition is a serious threat to life or limb, or to patients for whom surgery may be needed to facilitate discharge from the hospital.

<sup>4</sup>Cancellation of surgeries should be done in accordance with the Basic Premises section including providing individual patients reasonable accommodations as needed.

<sup>5</sup>Limited visitors should be done in accordance with the Basic Premises section including providing individual patients reasonable accommodation and access to necessary support personnel.

## Clinician Responsibilities and Utilization of the Algorithm and Tools

Given our charge to do the best for the most, saving as many lives as possible with a marked scarcity of resources (including, but not limited to, general hospital and ICU services, personnel, equipment, and/or drugs) there are certain situations where maximally aggressive treatment cannot be provided to every individual. At that point, the following process should be activated:

Physician clinical judgment regarding differential likelihood of survival among patients should begin, following the Basic Premises outlined above. This should include: 1) an individualized assessment of each patient's treatment preferences and survival likelihood based on best available, relevant, and objective evidence; and 2) as-needed modification of this Guideline and any tools utilized as needed to accommodate for the individual patient's clinical circumstances, including disabilities.

This Guideline provides a **HOSPITAL AND ICU/VENTILATOR ADMISSION TRIAGE ALGORITHM** and recommends various clinical assessment and/or prognostication tools both in the Basic Premises section and in the following pages to help the responsible treating physician(s), triage committee, and/or triage officer determine which patients should be medically managed and/or receive palliative care at home or in the hospital and which patients to admit to hospital and/or receive priority for interventions including but not limited to medications, ICU beds, ventilators, ECMO or other scarce resources. The choice of which clinical assessment/prognostication tools to use to further inform clinician judgment should be determined on a case by case basis by the responsible treating physician(s). Any tool chosen should be modified as necessary to accommodate for disability<sup>6</sup>. The basic triage principle however remains: the lowest priority for admission and/or access to intensive care services is given to patients with the lowest chance of survival with or without treatment, and to patients with the highest chance of survival without treatment. Thus, in a crisis situation when there are not enough resources to provide intensive treatment to every patient, a patient judged to have lower likelihood of survival should be triaged to a "comfort only" plan of treatment and the patient with higher likelihood of survival triaged to intensive treatment.

In all cases, clinical judgment may not be based on any unlawful considerations including discriminatory practices prohibited in the Basic Premises outlined above. Clinicians, the clinical triage committee/clinical triage officer, and any ethics or review committee using this Guideline should receive training on the use of this Guideline including the Basic Premises, if feasible. An admirable long-term goal for health care organizations is to provide implicit bias and non-discrimination training when feasible.

### Crisis Standard of Care Level 3:

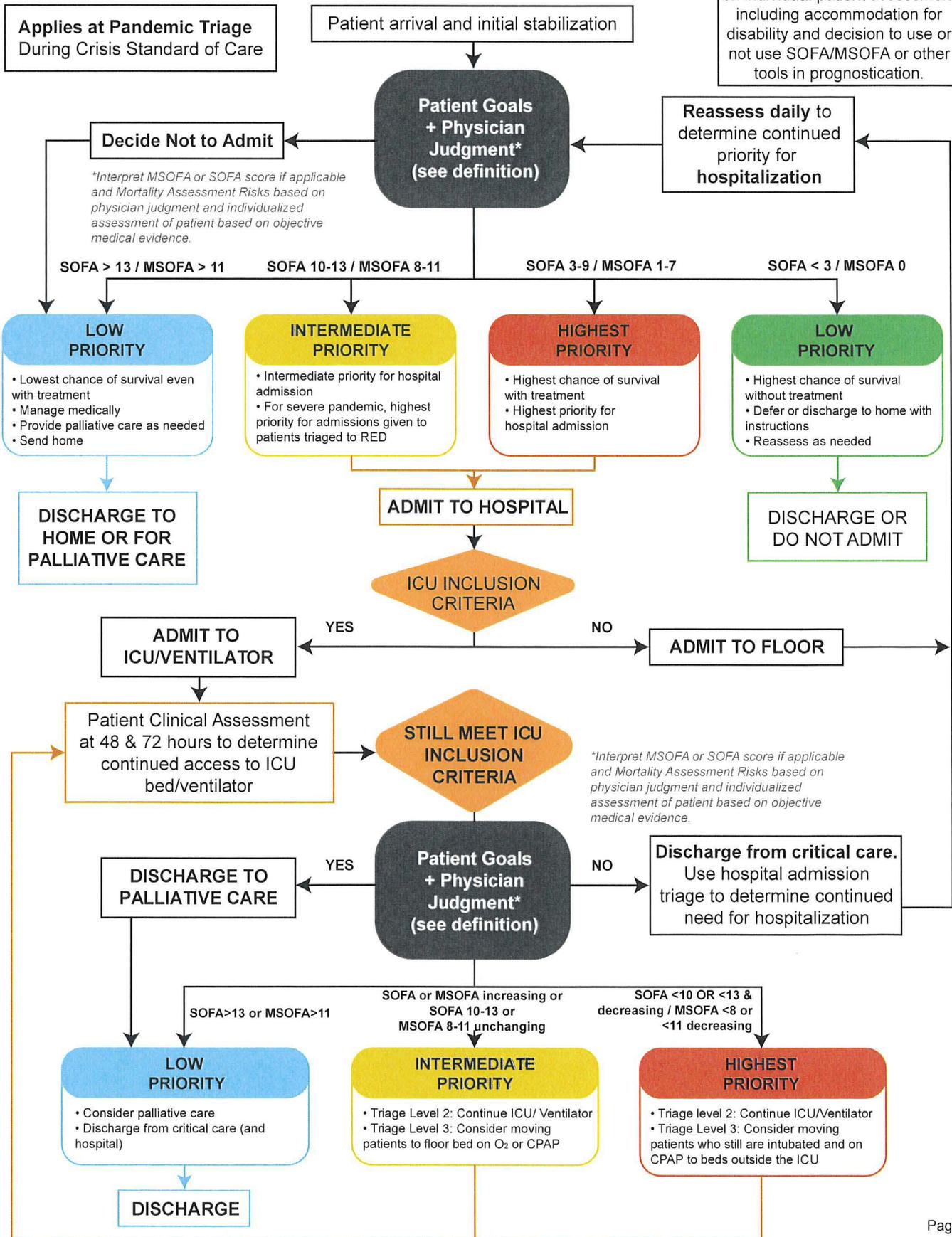
- Utilize physician clinical judgment and if deemed appropriate to the circumstance, initiate HOSPITAL AND ICU/VENTILATOR ADMISSION TRIAGE algorithm to determine priority for ICU admission, intubation and/or mechanical ventilation.
- Reassess need for ICU/ventilator treatment on a regular basis as is needed and feasible.
- Continue to use physician clinical judgment and if deemed appropriate to the circumstance, HOSPITAL AND ICU/ VENTILATOR ADMISSION TRIAGE algorithm to determine priority for ICU, intubation and/or mechanical ventilation. The responsible physician and/or clinical triage committee/clinical triage officer should make determinations as frequently as needed, about which patients are at risk of dying during the current acute care hospitalization even with disease modifying treatment, as further informed by application of objective prognostic tools as outlined in the Basic Premises to prioritize which patients will have access to critical care services if demand exceeds supply of such service. Further, if the above does not allow adequate differentiation between two patients otherwise judged to have the same likelihood of survival to discharge, and Crisis Standard of Care has been triggered, the responsible physician and/or clinical triage committee/clinical triage officer may allocate the scarce resource to the patient with the more favorable short-term post-hospital survivability, as long as this is not based on any unlawful considerations prohibited in the Basic Premises outlined above. If it becomes necessary,
  - Triage more **YELLOW** patients to floor on oxygen or CPAP.
  - Triage more **RED** patients who are intubated and on CPAP to floor.

See pages 9-13 for triage algorithm and supporting tools for adult criteria.

<sup>6</sup>Assessment tools or individual components of such tools may need reasonable modification to ensure that disability related characteristics unrelated to survival do not worsen any score applied to a patient. For example, the Glasgow Coma Scale, a tool for measuring acute brain injury severity in the MSOFA/SOFA, adds points to the MSOFA/SOFA score when a patient cannot articulate intelligible words or has difficulty with purposeful movement. For patients with pre-existing speech disabilities or disabilities that effect motor movement, this may result in a higher MSOFA/SOFA score even in instances where the patient's disability is not relevant to short-term mortality risk. Similarly, individuals who use personal ventilators or oxygen may score higher as a result of their typical usage and this may also result in a higher MSOFA score even where this would not be relevant to short-term mortality risk.

**ALGORITHM: HOSPITAL AND ICU/VENTILATOR ADMISSION TRIAGE**

\*Physician Judgment is based on individual patient assessment including accommodation for disability and decision to use or not use SOFA/MSOFA or other tools in prognostication.



(a) Modified Sequential Organ Failure Assessment (MSOFA) Score:

MSOFA Scoring Guidelines						
Variable	Score 0	Score 1	Score 2	Score 3	Score 4	Score for each row
SpO <sub>2</sub> /FIO <sub>2</sub> ratio* or nasal cannula or mask O <sub>2</sub> required to keep SpO <sub>2</sub> >90%	SpO <sub>2</sub> /FIO <sub>2</sub> >400 or room air SpO <sub>2</sub> >90%	SpO <sub>2</sub> /FIO <sub>2</sub> 316-400 or SpO <sub>2</sub> >90% at 1-3 L/ min	SpO <sub>2</sub> /FIO <sub>2</sub> 231-315 or SpO <sub>2</sub> >90% at 4-6 L/ min	SpO <sub>2</sub> /FIO <sub>2</sub> 151-230 or SpO <sub>2</sub> >90% at 7-10 L/ min	SpO <sub>2</sub> /FIO <sub>2</sub> <150 or SpO <sub>2</sub> >90% at >10 L/ min	
Jaundice	no scleral icterus			clinical jaundice/ scleral icterus		
Hypotension†	None	MABP <70	dop <5	dop 5-15 or epi <0.1 or norepi <0.1	dop >15 or epi >0.1 or norepi >0.1	
Glasgow Coma Score	15	13-14	10-12	6-9	<6	
Creatinine level, mg/dL (use ISTAT)	1.2	1.2-1.9	2.0-3.4	3.5-4.9 or urine output <500 mL in 24 hours	>5 or urine output <200 mL in 24 hours	
<b>MSOFA score = total scores from all rows:</b>						

**(b) Sequential Organ Failure Chart (SOFA)**

SOFA Scoring Guidelines						
Variable	Score 0	Score 1	Score 2	Score 3	Score 4	Score for each row
PaO <sub>2</sub> /FiO <sub>2</sub>	>400	≤ 400	≤300	≤200	≤100	
Platelets, x10 <sup>3</sup> /μL	<150	101-150	51-100	21-50	≤20	
Bilirubin, mg/dL	<1.2	1.2-1.9	2.0-5.9	6.0-11.9	>12	
Hypotension <sup>1</sup>	None	MAP<70	Dop≤5, or any dobutamine	Dop 5-15, or Epi≤0.1, or Norepi≤0.1	Dop>15, or Epi>0.1 or Norepi>0.1	
Glasgow Coma Score <sup>2</sup>	15	13-14	10-12	6-9	<6	
Creatinine, mg/dL	1.2	1.2-1.9	2.0-3.4	3.5-4.9 or urine output <500 mL in 24 hours	>5 or urine output <200 mL in 24 hours	
<b>SOFA score = total scores from all rows:</b>						

1. Dopamine (Dop), Epinephrine (Epi), and Norepinephrine (Norepi) does in μg/kg/min
2. If patient is chemically sedated, use last known or estimated GCS prior to sedation. Adapted from Up to Date and Ferreira FL, 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.

A reasonable modification of MSOFA or SOFA may be a necessary accommodation for patients with a disability (including but not limited to deafness, cognitive or mobility limitations).

\*SpO<sub>2</sub>/FIO<sub>2</sub> ratio:  
 SpO<sub>2</sub> = Percent saturation of hemoglobin with oxygen as measured by a pulse oximeter and expressed as % (e.g., 95%); FIO<sub>2</sub> = Fraction of inspired oxygen; e.g., ambient air is 0.21 Example: if SpO<sub>2</sub> = 95% and FIO<sub>2</sub> = 0.21, the SpO<sub>2</sub>/FIO<sub>2</sub> ratio is calculated as 95/0.21 = 452 †

Hypotension:  
 MABP = mean arterial blood pressure in mm Hg [diastolic + 1/3(systolic - diastolic)]  
 dop= dopamine in micrograms/kg/min  
 epi = epinephrine in micrograms/kg/min  
 norepi = norepinephrine in micrograms/kg/min

**(c) ICU/Ventilator INCLUSION CRITERIA:**

Patient have at least one of the following **INCLUSION CRITERIA**:

**1. Requirement for invasive ventilatory support**

- Refractory hypoxemia (SpO<sub>2</sub> <90% on non-rebreather mask or FIO<sub>2</sub> >0.85)
- Respiratory acidosis (pH <7.2)
- Clinical evidence of impending respiratory failure
- Inability to protect or maintain airway

**2. Hypotension\* with clinical evidence of shock\*\* refractory to volume resuscitation, and requiring vasopressor or inotrope support that cannot be managed in a ward setting.**

- \*Hypotension = Systolic BP <90 mm Hg or relative hypotension.
- \*\*Clinical evidence of shock = altered level of consciousness, decreased urine output or other evidence of end-stage organ failure.

**(d) Continuous Clinical Assessment:**

All patients who are allocated critical care services will be allowed a therapeutic trial of a duration to be determined by the clinical characteristics of the disease. Patients should generally be given an initial 48 to 72-hour trial. Although patients should generally be given the full duration of the initial 48 to 72-hour trial, if patients experience a precipitous decline, the treating physician(s), the clinical triage committee, or the clinical triage officer may make a decision before the completion of the specified trial length that the patient is no longer eligible for critical care treatment. Patients who have not declined will continue receiving the scarce resources they have been allocated until the next assessment. If there are patients in the queue for critical care services, then patients who upon individualized reassessment show substantial clinical deterioration (as compared to baseline) as evidenced by overall clinical judgment informed by any objective prognostic tools as deemed appropriate will be eligible to have critical care interventions withdrawn if necessary to save the life of another patient.

**(e) Glasgow Coma Score (GCS):**

The GCS is used as part of the MSOFA and SOFA scores. Any decisions made based on the Glasgow Clinical Scale will consider the base line responsiveness of a person with a disability (including but not limited to deafness, cognitive or mobility limitations) but to the extent this information is readily available and modify the result accordingly.

<b>Glasgow Coma Scoring Criteria</b>				
<b>Criteria</b>	<b>Adults and Children</b>	<b>Infants and Young Toddlers</b>	<b>Score</b>	<b>Criteria Score</b>
<b>Best Eye Response</b> (4 possible points)	No eye opening	No eye opening	1	
	Eye opens to pain	Eye opens to pain	2	
	Eye opens to verbal command	Eye opens to speech	3	
	Eyes open spontaneously	Eyes open spontaneously	4	
<b>Best Verbal Response</b> (5 possible points)	No verbal response	No verbal response	1	
	Incomprehensible sounds	Infant moans to pain	2	
	Inappropriate words	Infant cries to pain	3	
	Confused	Infant is irritable and continually cries	4	
	Oriented	Infant coos or babbles (normal activity)	5	
<b>Best Motor Response</b> (6 possible points)	No motor response	No motor response	1	
	Extension to pain	Extension to pain	2	
	Flexion to pain	Abnormal flexion to pain	3	
	Withdraws from pain	Withdraws from pain	4	
	Localizes to pain	Withdraws from touch	5	
	Obeys commands	Moves spontaneously or purposefully	6	
<b>Total Score (add 3 subscores; range 3 to 15):</b>				

## DEFINITIONS USED IN THIS DOCUMENT

- **Emergency Patients:** Those patients whose clinical conditions indicate that they require admission to the hospital and/or surgery within 24 hours.
- The federal, state or local government or a government agency may determine when and the type of elective surgeries that can be scheduled while an emergency declaration is in place.

If a government or governmental agency has not made this determination, **elective surgery means:**

- **Category 1:** Urgent patients who require surgery within 30 days.
- **Category 2:** Semi-urgent patients who require surgery within 90 days.
- **Category 3:** Non-urgent patients who need surgery at some time in the future.
- **Palliative Care:** In the setting of an overwhelming medical crisis, palliative care helps improve patient symptoms such as shortness of breath, pain and anxiety. Palliative care teams also support patient and family spiritual and/or emotional pain

## ADULT Guideline REFERENCES:

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