SOUTHWEST TEXAS REGIONAL ADVISORY COUNCIL'S HOSPITAL AND ICU PANDEMIC CRISIS GUIDELINES
Version 1.5 - January 2021

Purpose: To support clinicians, health systems, and the community by providing a clinically and ethically sound triage protocol for allocating healthcare resources (e.g. hospital care, ICU care, ventilators) during a crisis when resources are critically scarce (such as a pandemic respiratory crisis).

Basic principles:

- Resource allocation should be considered only when necessary during a crisis after (and while) all other efforts are made to reduce scarcity of resources.
- No institution or individual can transition to Crisis Levels 2 or 3 without seeking guidance from the Regional Medical Operations Center and the State Operations Center.
- Medical and surgical care during a crisis should be based on usual clinical and ethical duties to provide effective and compassionate care, respect patient autonomy, and avoid unnecessary harm. In the setting of uncertainty and time-sensitive decisions, clinical judgment and situational awareness remain essential.
- Stewardship, equity, and accountability require that scarce resource allocation aims to save as many lives as possible while prioritizing resources for those who are in greatest need and are likely to survive the acute illness or injury. Levels of priority for hospital and ICU admission should focus on patient preferences, clinical needs, and survivability.
- Fairness and respect entail avoiding discrimination based on race, ethnicity, religion, gender, gender identity, sexual orientation, disability, age, weight/ size, inability to pay, homelessness, or perceived or assessed quality of life (pre or post-treatment) or social value, as well as incarceration, veteran, insurance, or immigration status.
- Persons with disabilities are entitled to reasonable accommodations to ensure they are provided equal opportunity to benefit from care. These accommodations include: the use of clinical judgment in place of prognostic scoring systems where a patient's baseline would adversely affect a score; time and support to process medical information and decisions; visitation from support persons to accompany patients with physical, emotional, and communication-related disabilities; a pledge that disability-related home ventilators brought to the health system will not be re-allocated in a crisis.
- Patients who are not likely to survive should receive the best available supportive care.

Scope:

- Under a declared state of emergency, the Governor maintains the authority to supersede existing healthcare regulations or statutes.
- These guidelines are intended to complement the policies and procedures of participating STRAC health systems and to comply with the Texas Health & Safety Code, including Chapters 166 ("Advance Directive Act"), 311.022, and 313, as well as the Texas Administrative Code, Chapter 133.42.
- These guidelines are intended to comply with Title II of the Americans with Disabilities Act ("ADA"), Section 504 of the Rehabilitation Act, Section 1557 of the Patient Protection and Affordable Care Act ("ACA"), and the Age Discrimination Act of 1975 ("Age Act").
- The principles of hospital and ICU triage apply equally to pediatric, adult, and pregnant populations. However, specialized clinical assessment and statutory guidance may be needed.

Activation: These guidelines are activated when the Governor or other appropriate official declares a pandemic respiratory crisis or other public health emergency that has the potential to overwhelm available hospital or ICU resources. Individual health systems may define terms of activation and crisis levels.

Guideline review and application:

- STRAC strongly recommends health-system-level formation of Triage Review Committees to review these guidelines and provide timely clinician support, consultation, and updated information related to resource availability and health-system bed capacity. Committee membership should be interdisciplinary, diverse, and inclusive. Members should include intensivists, nursing and organizational leadership, ethics committee members, spiritual care providers, community representatives, and legal consultants. Committee members should consider disability-specific training and offer a review and appeal process for patients, families, and providers for concerns related to fairness and possible bias.
- Guidelines may be updated by STRAC with guidance from participating health system Committees based on emerging evidence related to effective treatments and feedback from clinical staff and the community.
- Health systems should maximize supportive, administrative, and consultative services for complex treatment decisions and to coordinate care. Clinicians should have access to updated and expected resource availability. Peer support and wellness programs should be made available to staff during and after a crisis.

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OVERVIEW OF CRISIS LEVELS: EXAMPLE

Crisis Level 1
Early in the pandemic

- Hospitals are receiving patients with active infections in significantly increased numbers.
- Emergency departments, ICUs and hospital floors are able to perform normal functions but are busy with respect to patients with active infections.
- Public health officials are reporting significant community transmission and increasing positive cases in the region.
- Note: In the event of a severe and rapidly progressing pandemic, start with Crisis Level 2.

Crisis Level 2
Worsening pandemic

- Hospitals have surged to maximum bed capacity and emergency departments are overwhelmed, and;
- There are not enough staffed beds to accommodate all patients needing hospital admission, and;
- Hospitals are considering cohorting of patients and securing assets (personnel, equipment, clinical specialists). Efforts are being made to discharge patients safely to lower levels of care; home care may involve expanded telehealth care.

Crisis Level 3
Worst-case scenario

- Criteria met for Crisis Level 2, and;
- There are not enough ventilators to accommodate all patients with respiratory failure, and;
- Hospitals have implemented altered standards of care regarding nurse/patient ratios and have expanded capacity by adding patients to occupied hospital rooms, requested additional supplies of ventilators and PPE, or converting PACUs or ORs to ICUs.

CONSIDERATIONS FOR PREHOSPITAL SETTINGS

INITIAL TRIAGE

Applies to: Patients who appear for care in physician offices or clinics, or in pre-evaluation spaces for emergency departments
Implemented by: Physicians, clinic staff, pre-screening staff
Other uses: Publish in newspapers or web sites for self-use by public

ALL Crisis Levels: Provide initial triage screening as well as instructions and directions for patients who need additional care or medical screening.

EMS, PHYSICIAN OFFICES AND CLINICS

Applies to: Patients who present for care or call for guidance for where to go or how to care for ill family members
Implemented by: Primary care staff, hospital help lines, community help lines, and health department help lines

Crisis Level 1:

- Evaluate patients before sending to hospital ED or treating in an outpatient facility.

Crisis Levels 2 and 3:

- Implement alternate plans to support patients who can receive care at home or in a secondary setting.
- Begin coordination with Free Standing Emergency Centers to care for patients in this setting.

HOME CARE, LONG-TERM CARE FACILITIES, AND OTHER INSTITUTIONAL FACILITIES

Applies to: Patients in institutional facilities **Implemented by:** Institutional facility staff

ALL Crisis Levels:

- Ensure that all liquid oxygen tanks are full.
- Limit visitation to control infection. Reasonable accommodations must be made to allow for support persons of patients with disabilities as well as for clergy access in compassionate care situations, including at end of life.
- Consultation with San Antonio Metro Health Department or appropriate local health department about infection control and containment strategies.
- Ensure adequate PPE levels meet current and anticipated needs.
- Develop contingency plans for augmenting PPE levels with locally sourced materials

Crisis Levels 2 and 3:

- Use clinical judgment and, when appropriate, the tools and tips in this document (pages 4-9), to evaluate patients.
- Provide palliative and supportive care on-site when possible.
- Contact Regional Medical Operations Center for coordination and guidance.

CONSIDERATIONS FOR HOSPITAL SETTINGS

HOSPITAL ADMINISTRATIVE ROLES - GENERAL

Crisis Level 1:

1) Preserve bed capacity by:
- Minimizing, postponing and rescheduling all elective operations in CMS Tiers 1a-2b. Proceed with operations and procedures where a delay in operation would create harm for the patient (CMS Tier 3a and 3b).
- Note: Use standard operation and triage decisions for admission to ICU.

2) Preserve oxygen capacity by:
- Phasing out all non-acute hyperbaric medicine treatments.
- Ensuring that all liquid oxygen tanks are full.

3) Preserve PPE in low risk situations. Order additional PPE based on projected need.

4) Improve patient care capacity by transitioning space in ICUs to accommodate more patients with respiratory failure.

5) Control infection by limiting visitation. Visitors and support persons must adhere to infection control procedures including screening for illness and PPE. Reasonable accommodations must be made to allow for support persons of patients with disabilities as well as for clergy access in compassionate care situations, including at end of life.

6) Assessment of supply and initiate ordering of pertinent medications to include sedatives, analgesia, paralytics, MDIs, iNO tanks and disease-specific treatments as well as intubation equipment, HEPA filters, ventilator circuits, CRRT fluids & circuits.

7) Implement provider self-assessment of clinical skills related to triage, floor level care, critical care, palliative care and procedures. From this, create a database in order to create an appropriately staffed tiered back-up system using all available providers.

Crisis Level 2:

1) Preserve bed capacity by:
- Canceling all elective surgeries unless necessary to facilitate hospital discharge.
- Evaluating hospitalized elective surgery patients for discharge using same criteria as medical patients.
- Reasonable accommodations must be made to ensure that persons with disabilities have the same access to elective surgical care as persons without disabilities.

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 provided symptom management, counseling, care coordination for patients, and support for families of patients who need it and for those who do not receive higher levels of care and are unlikely to survive.

4) Implement a Triage Review Committee for the review and application of these guidelines (as described on page 1).

5) Maximize supportive, administrative, and consultative services for complex treatment decisions and palliative care.

6) Call for assistance from the Regional Medical Operations committee to request all available resources for equipment and personnel to care for current and anticipated patients, such as additional nurses/physicians/APPs, PPE, mechanical ventilators, materials to retool PACUs & ORs into ICU areas

7) Implement crisis standards for PPE if supplies are critically short.

8) Analyze provider self-assessment of clinical skills related to triage, floor level care, critical care, palliative care and procedures taking into account any providers that may be out due to illness and create multidisciplinary tiered teams that will be ready to mobilize for backup and cross-filling when needed. Provide educational resources for these providers.

9) Begin coordination with Free Standing Emergency Centers

Crisis Level 3:

1) Preserve bed capacity by limiting to only necessary CMS tier 3b procedures. Implement damage control surgery protocol to limit OR time and supplies.
- To increase ICU capacity, transition all unused OR and PACU space into ICUs.

2) Implement backup and crossfill plans to augment critical care physicians and hospitalists.

3) Declare internal disaster.

4) Coordinate all decisions regarding new EMS transports with the Emergency Operations Center and the Regional Medical Operations Center. Request diversion to all EMS traffic.

5) Request transfer of patients appropriate for transfer through the Regional Medical Operations Center.

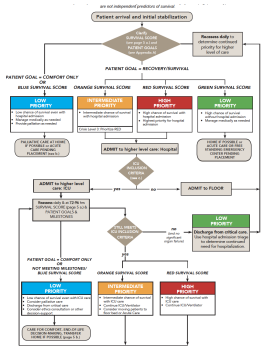
6) Ensure palliative care teams are engaged with clinicians and their patients.

7) Transfer and transport appropriate patients to Free Standing Emergency Centers.

EMERGENCY DEPARTMENT, HOSPITAL AND ICU — CLINICAL TRIAGE

Use clinical judgment and, when appropriate, the tools and tips in this document (pages 4-9), to evaluate patients. Clinical decisions should be individualized and based on patient preferences. In Crisis Levels 2 and 3, the *lowest* priority for admission is given to patients with the lowest chance of survival from acute illness or injury *even with* available treatment and to patients with the highest chance of survival *without* treatment. Race, age, and disability are not independent predictors of survival. Because clinical decisions are time-sensitive and shrouded in uncertainty, physician judgment should be used in applying these guidelines. Continual reassessment of availability of hospital beds and ventilators should be performed. Consultation with critical care providers and the Triage Review Committee is encouraged.

ALGORITHM: HOSPITAL AND ICU/VENTILATOR ADMISSION TRIAGE



Crisis Level 2:

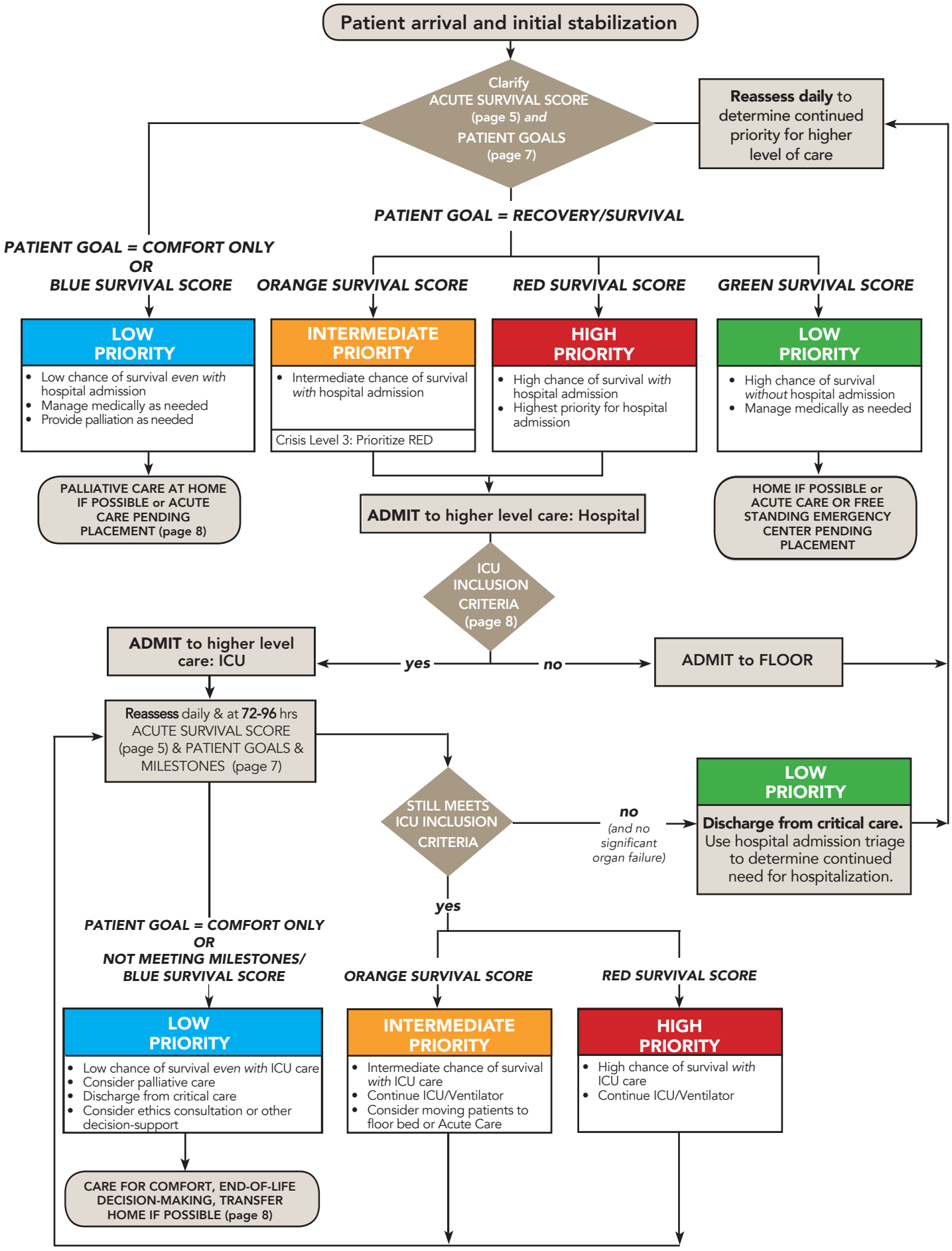
- Use clinical judgment and, when appropriate, the tools and tips in this document (pages 4-9) to help determine priority for ICU admission.
- Reassess need for ICU/ventilator treatment daily and/or as necessary. After 72 - 96 hours, it is recommended that all ICU patients have a reassessment of the patient's goals and whether clinical milestones have been met.

Crisis Level 3:

- Use clinical judgment and, when appropriate, the tools and tips in this document (pages 4-9), to help determine priority for ICU, intubation, and/or mechanical ventilation.
- Triage patients who do not meet ICU inclusion criteria or with green survival scores (page 5) to lower level of care.
- Triage patients with red or orange survival scores (page 5) to continued higher level of care.

ALGORITHM: HOSPITAL AND ICU/VENTILATOR ADMISSION TRIAGE

(Applies at Crisis Levels 2 and 3–see page 2. See page 1 for basic principles, scope, activation, review, and application. Decisions should be based on patient preferences and survival from acute illness or injury. Race, age, and disability are not independent predictors of survival.



CRISIS TRIAGE TOOLS

Basic principles

Equal opportunity: Persons with disabilities are entitled to reasonable accommodations to ensure they are provided equal opportunity to benefit from care. These accommodations include the use of clinical judgment in place of physiologic scoring systems where a patient's baseline would adversely affect a score. Allocation of resources should not be based on judgments about race, long-term survival, resource-intensity/duration of need, or perceived quality of life, social value, or status (see Page 1). Instead, decisions should be based on patient preferences and clinical judgment about short-term survival.

Short-term survival: Short-term survival means near-term survival from the episode of care that directly resulted from the illness or injury that required hospitalization.

Clinical judgment: Clinical judgment of survival from acute illness or injury should be:

1. Derived from individualized assessment of patient presentations
2. Informed by the best available objective evidence
3. Based on life-sustaining treatment provided in accordance with prevailing standards of medical care

Individualized assessment: Individualized assessment of the nature and severity of acute illness or injury should include a careful history, physical exam, and appropriate use of ancillary studies and clinical consultation. While physiologic scoring systems like SOFA or mSOFA are designed to predict outcomes for certain groups, they can be helpful in quantifying the severity of an individual patient's initial systemic response to acute illness or injury. No patient should be automatically excluded from further care; no features of patient presentations should count as exclusion criteria.

Severity of acute illness and injury: Severity of acute illness and injury is based on clinical judgment related only to short-term survival. As a guide, extreme severity results in <10% likelihood of surviving the episode even with higher level care. See Table 1 for examples of patient presentations demonstrating extremely severe acute illness or injury. Lower severity of acute illness or injury results in a greater likelihood of surviving the episode. Whether that likelihood increases to 10-50%, 50-90%, or >90% should be based on clinical judgment as defined above.

Chronic organ system dysfunction or failure: Chronic or pre-existing organ system dysfunction signifies both a failure to carry out functions essential to survival and a diminished physiologic reserve or resilience in response to acute illness or injury. Consideration of pre-existing organ system dysfunction can therefore help to anticipate ongoing systemic responses to acute illness or injury. To avoid unfair bias against persons with disabilities, doctors must not render value judgments about quality of life or resource-intensity/duration but instead focus on objective evidence of whether pre-existing organ dysfunction is relevant and severe enough to adversely affect short-term survival even with available life-sustaining treatment. As a guide, severe chronic organ system dysfunction presents with signs and symptoms of progressive organ system failure and >90% likelihood of progressing towards cessation of vital bodily functions, whether gradually or in response to other injuries or illnesses. Higher severity results in a lower likelihood of and/or recovery from acute illness or injury. See Table 2 for examples of patient presentations demonstrating severe chronic organ dysfunction.

How to score in Box 1: Consider the features of patient presentations in Rows 1 and 2. For each row, assign a score using points in the column header. **When in doubt, round down: assign lower points in a row when there is less certainty about severity of illness/injury/organ dysfunction.** Percentages are just a guide. In the "20" column, score either "Extremely severe" (blue) or "Not severe" (green), not both. When appropriate, use mSOFA or SOFA, but not both. Apply total points to determine level of care triage in Box 2.

Box 1: Acute survival score

Patient presentation	0	5	10	20
Row 1: How severe is the acute injury or illness based on clinical judgment? • See Table 1 for examples of patient presentations demonstrating extremely severe acute illnesses or injuries • See Table 2 for examples of patient presentations demonstrating severe chronic organ dysfunction	Not severe: >90% likelihood of surviving the episode only with higher level of care	Moderately severe: 50-90% likelihood of surviving the episode with higher level of care	Very severe: 10-50% likelihood of surviving the episode with higher level of care	Extremely severe: <10% likelihood of surviving the episode even with higher level of care Not severe: >90% likelihood of surviving the episode without higher level of care
Row 2: How severe is the systemic response to acute illness or injury based on initial physiologic scoring? • See Table 3 for mSOFA and SOFA scoring and related tips	mSOFA < 8 SOFA < 10 *or* decreasing serial SOFA	mSOFA 8 - 10 SOFA 10 – 12 *or* not increasing serial SOFA	mSOFA 11 - 13 SOFA 13 – 15 *or* increasing serial SOFA 1-2	mSOFA > 13 SOFA > 15 *or* increasing serial SOFA ≥3

Box 2: Level of care triage

Total points Row 1 + Row 2	LEVEL OF CARE TRIAGE: HIGH PRIORITY = LOWER TOTAL SCORE For difficult comparisons: higher priority = higher diagnostic certainty related to short-term survival	
0 = Red	High survival: high priority	
5 - 15 = Orange	Intermediate survival: intermediate priority	
≥20 = Blue or Green	Low survival: low priority	High survival: low priority

Table 1: Examples of patient presentations demonstrating extremely severe acute illness or injury

Presentation	<10% likelihood of surviving the episode even with higher level care
Bleeding stroke	• Presents with ICH score 4 or 5 *or* • Presents with ICH score 3 and additional intracranial events in ICU
Ischemic stroke	• Presents with basilar or large cortical/MCA stroke (e.g. > 100 mL) not amenable to neurosurgical interventions
Cardiac arrest	• Cardiac arrest in the field without ROSC *OR* • ACLS > 20 minutes
AMI	• AMI c/b refractory cardiogenic shock (if revascularization not possible OR if associated with mechanical complications such as papillary rupture, VSD, or free wall rupture)
TBI	• Present with GCS 3T and either: absent brainstem reflexes, blown pupil, herniation on head CT (If none of these signs on admission, reassess on day 5. If GCS<8 and new intracranial events, then unlikely to survive)
Burn	• Total Body Surface area >85% (2nd and 3rd degree)
Respiratory failure	• Persistent PaO2/FiO2 ratio <100 despite modern, conventional ICU respiratory management
COVID respiratory failure	• See latest evidence-based guidelines: cardiac failure, acute dysrhythmias, mechanical intubation, ARDS, and failure to respond to standard ICU respiratory management are considered high-risk features
Trauma	• Revised Trauma Score < 2 • See Revised Trauma Score table
Sepsis	• SOFA > 15 • mSOFA > 13 (consider when unable to determine SOFA)
Liver failure	• MELD-Na > 40
Vascular	• Acute Type A aortic dissection with rupture or cardiac arrest • Ruptured abdominal aortic aneurysm with free rupture and/or significant hemorrhagic shock • Aortoenteric fistula with hemorrhagic and/or septic shock

Table 2: Examples of patient presentations demonstrating severe chronic system dysfunction

Organ system	Signs and symptoms of progressive organ system failure and >90% likelihood of progressing towards cessation of vital bodily functions
Cardiac	• Ongoing NYHA CHF Class IV symptoms (unable to carry on any physical activity without symptoms of HF, or symptoms of HF at rest) that are refractory to maximally tolerated typical ambulatory therapy • CHF due to critical aortic stenosis or severe mitral valve regurgitation • Signs of advanced CHF: refractory hyponatremia; chronic SBP<90; inability to tolerate best therapy due to symptoms, kidney injury, or low BP; CKD; frailty; cachexia; multiple HF hospitalizations in last year or 30 days; inotrope dependence
Pulmonary	• Progressive dyspnea at rest, FEV1 < 30%, cor pulmonale, or unintentional ≥10% weight loss in prior 6 months
Hepatic	• MELD-Na ≥ 32 or Pugh Class C *and* progressive decompensation (bleeding, encephalopathy, kidney injury) • See Model of End-stage Liver Disease-Na and Pugh Class
Renal	• CKD V (GFR < 15 x 3 months) and withholding/withdrawing dialysis
Onco-regulatory	• Metastatic malignancy causing progressive end-organ injury or failure
Immunologic	• End-stage or untreatable immunodeficiency with <50 CD4 cells and either MDR virus or unable to take medications due to comorbid conditions

Table 3: SOFA and mSOFA

Tips for determining SOFA and mSOFA score:

- If baseline/chronic GCS score is <15, then the SOFA or mSOFA score is of limited utility. Use clinical judgment. See Additional Resources (page 8).
- GCS for sedated & intubated patients: Carry over pre-sedation/intubation score. If this is not available, use score of 15/15. Reassess when possible after sedation.
- With multiple values: use the worst or least favorable value in the last 24 hours.
- If vasopressin is used, convert to equivalent norepinephrine for use in score.

Sequential Organ Failure Assessment (SOFA) Score [1-2]

Organ System	0	1	2	3	4
Respiratory PaO2/FiO2, mmHg	>400	≤400	≤300	≤200	≤100
Coagulation Platelets x10³/μL	>150	≤150	≤100	≤50	≤20
Liver Bilirubin, mg/dL	<1.2	1.2-1.9	2.0-5.9	6.0-11.9	>12.0
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 urine output mL/d	<1.2	1.2-1.9	2.0-3.4	3.5-4.9 or urine <500 mL/d	>5.0 or urine<200 mL/d

MAP=mean arterial pressure

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

MSOFA scoring guidelines

Variable	Score 0	Score 1	Score 2	Score 3	Score 4	Score for each row
SpO_2/FIO_2 ratio* *or* nasal cannula or mask O_2 required to keep SpO_2 >90%	SpO_2/FIO_2 >400 *or* room air SpO2 >90%	SpO_2/FIO_2 316-400 *or* SpO_2 >90% at 1–3 L/min	SpO_2/FIO_2 231-315 *or* SpO_2 >90% at 4–6 L/min	SpO_2/FIO_2 151-230 *or* SpO_2 >90% at 7–10 L/min	SpO_2/FIO_2 ≤150 *or* SpO_2 >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	
					MSOFA score = total scores from all rows:	

SpO_2 = % saturation of hemoglobin with O2 as measured by a pulse oximeter and expressed as % (e.g. 95%); FIO_2 = Fraction of inspired O2; e.g., ambient air is 0.21

Example: *if SpO_2 = 95% and FIO_2 = 0.21, the SpO_2/FIO_2 ratio is calculated as 95/0.21 = 452*

Estimated FiO_2 in patients supported with low flow nasal cannula

Flow rate (l/min)	1	2	3	4	5	6	7	8
Estimated FiO_2	0.24	0.27	0.3	0.33	0.36	0.39	0.42	0.45

Estimated FiO_2 in patients supported with oxygen via facemask

Flow rate (l/min)	5	6–7	7–8
Estimated FiO_2	0.4	0.5	0.6

Estimated FiO_2 in patients supported with oxygen via facemask with reservoir bag

Flow rate (l/min)	6	7	8	9	10+
Estimated FiO_2	0.6	0.7	0.8	0.9	0.95

Drug	Dose	Norepinephrine equivalent
Epinephrine	0.1 μg/kg/min	0.1 μg/kg/min
Norepinephrine	0.1 μg/kg/min	0.1 μg/kg/min
Dopamine	15 μg/kg/min	0.1 μg/kg/min
Phenylephrine	1.0 μg/kg/min	0.1 μg/kg/min
Vasopressin	0.04 U/min	0.1 μg/kg/min

Appendix A: Tools and Tips for Communication and Self-Care

Goals of Care: Patient-centered care entails meeting the highest possible standards of informed consent. This requires:

(1) ensuring that patients understand their health condition, the nature and prognosis for recovery, and the benefits/risks of treatment options; reasonable accommodations for patients with disabilities should be in place, such as allowing additional time for processing information and decisions.
(2) assessing patient's values and prioritized goals of clinical care (e.g. to live as long as possible, to live independently, to be comfortable, etc); and
(3) documenting treatment decisions including advance directives and code status preferences.

Clinical Milestones: When initiating a plan of care in light of a patient's goals of care, it is essential for clinicians to identify clear milestones of clinical success and failure that will determine whether a goal or time-limited trial of treatment should continue. Describe in advance the ROAD TO RECOVERY and the ROAD TO NOT RECOVERING.

Setup and Communication: Find/create a quiet space and limit distractions. Use video and social distancing when needed. Use professional interpreters for limited English proficiency related to disabilities or a different primary language. Use simple sentences, avoid medical jargon, pause and allow processing, and check for understanding.

Breaking Bad News (SPIKES)
Setting: (Quiet, right people there)
Perception (What do patient/family understand?)
Invitation (How much do you want to know?)
Knowledge (Warning shot--"I have difficult news"; share information, keep it short and simple)
Emotion and Empathy (recognize/respect emotion)
Strategy and Summary (Steps moving forward)

Emotion and Empathy (NURSE)
Name emotion ("This is scary")
Understand ("I can imagine how stressful this is")
Respect ("I really admire your strength")
Support ("Offer your continued support)
Explore emotions ("Tell me more")

Addressing Goals of Care (REMAP)
Reframe (Why treatment will/will not work) ("We're in different place.")
Expect Emotion (see **NURSE** acronym)
Map out what is most important
Align with patient's goals and values
Plan treatment to match patient values (use milestones to guide the trial of treatment)

Note: Providers must be careful not to exert pressure on patients and their families to decline life-sustaining treatment in the process of discussing advanced care planning decisions. Patients and their families should not be subject to pressure to make particular advanced care planning decisions for the good of the facility or due to judgments regarding quality of life or relative worth. Providers must continue to provide information on the full scope of available alternatives, including the continued provision of life-sustaining treatment, and may not impose blanket Do Not Resuscitate policies for reasons of resource constraint. Providers may not require residents or patients to consent to a particular Advanced Care Planning decision in order to continue to receive services from a facility.

Tips for self care:

(1) Recognize common syndromes in clinical care and ethical decision-making:

Moral uncertainty: uncertainty regarding the right course of action, often due to not knowing relevant facts, which ethical principle or value matters most, or how to balance competing duties and interests

Moral distress: knowing the right thing to do but feeling unable to do it; often related to a sense of powerlessness in one's role or position

Moral injury: emotional harm due to feeling compelled to witness or participate in actions that violate one's conscience or sense of right and wrong; moral uncertainty and moral distress can both lead to moral injury

Compassion fatigue: feeling numb, disconnected, stressed, or exhausted after chronically witnessing trauma or suffering; also known as "secondary trauma" or the "cost of caring"

Burnout: exhaustion, depersonalization, and low sense of accomplishment in the work place

These syndromes are normal and common, particularly when clinicians are exposed to high morbidity and mortality and must make high-stakes decisions in the midst of uncertainty and unpredictable resources. Any of these syndromes can lead to adverse patient outcomes, clinician absenteeism and turnover, and clinician depression or harm.

(2) Anticipate and respond to these common syndromes, tailoring the response to the particular syndrome(s) one is experiencing:

- Education and commitment to self care: regular sleep, exercise, nutrition, family, and work/life balance including preservation of boundaries
- Diversified work or case load with protected time away from patient care
- Peer support practices such as mentorship, debriefings, and remembrances
- Promote environmental and reporting structures that make it easy to do the right thing: reward transparency, disclosure, and integrity
- Encourage and normalize participation in Employee Assistance Programs and counseling and pastoral care services for staff
- Incorporate contemplative practices that promote compassion for self and others
- Reach out to others early and often for support and ideas. Situational awareness is essential in the midst of a crisis. You are not alone. Others may be able to give you helpful support and perspective.

(3) Contemplative practice: from distress to compassion (GRACE):

Gather your attention: take a moment to focus on the situation. Pause. Breathe in. Ground yourself by gathering your attention.

Recall your intention: remind yourself why you are here--to serve. Remember what your service is really about: to relieve suffering, to act with integrity, and to preserve the integrity of others.

Attune: notice yourself, the situation, and then others in your presence. This is an active process of inquiry, first involving yourself and then others.

Consider what will serve: ask what this moment requires. What are you seeing, sensing, and learning?

Engagement and **E**nding: take the next step into a compassionate interaction. Engage with principled, compassionate action with mutual respect for all persons involved. Mark the end, release, and let go. Breathe out. Recognize internally that the encounter is over. Acknowledge your work and express gratitude

(4) Tips for emotional self care:

- Avoid black and white thinking: fast-forwarding to the worst possible outcomes causes panic and self-criticism; so stay present and focused on what you can do right now
- Validate your emotions: before trying to solve complex problems, practice validation of your feelings and the feelings of others; feelings are real and reasonable reactions; say **NURSE** statements (see above) to yourself and others
- Give yourself time and space to grieve: sadness, guilt, and anger often come in waves even before the loss happens; grief is normal and healthy; be kind to yourself and accepting of your journey
- Give yourself some credit every day: we all need praise for even the small things; make this a routine; acknowledge your expertise, competence, successes, and good work in a difficult situation; a simple "atta boy" or "atta girl" can help you or others get through a tough day

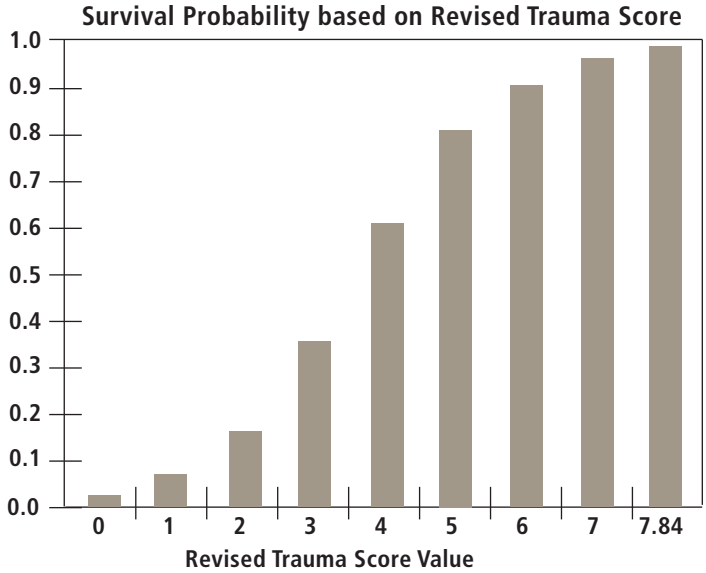
References:
https://www.vitaltalk.org
https://www.upaya.org/social-action/grace/

Appendix B, Additional resources

Glasgow Coma Scoring Criteria			
Criteria		Score	Criteria Score
Best Eye Response (4 possible points)	No eye opening	1	
	Eye opens to pain	2	
	Eye opens to verbal command	3	
	Eyes open spontaneously	4	_____
Best Verbal Response (5 possible points)	No verbal response	1	
	Incomprehensible sounds	2	
	Inappropriate words	3	
	Confused	4	
	Oriented	5	_____
Best Motor Response (6 possible points)	No motor response	1	
	Extension to pain	2	
	Flexion to pain	3	
	Withdraws from pain	4	
	Localizes to pain	5	
	Obeys commands	6	_____
Total Score (add 3 subscores; range 3 to 15):			_____

Assessment tools, such as the SOFA or Revised Trauma Score, may need reasonable modifications to ensure that disability-related characteristics unrelated to short-term mortality risk do not worsen the patient's score. For example, the Glasgow Coma Scale, a tool for measuring acute brain injury severity in the MSOFA, adds points to the 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 SOFA score even in instances where the patient's disability is not relevant to short-term mortality risk.

REVISED TRAUMA SCORE (RTS): Values for the REVISED TRAUMA SCORE (RTS) range from 0 to 7.8408. The RTS is heavily weighted toward the GLASGOW COMA SCORE (GCS) to compensate for major head injury without multisystem injury or major physiological changes. If baseline/chronic GCS score is <15, then the RTS scoring is of limited utility.



Revised Trauma Score Calculation				
Criteria	Score	Coded value	Weighting	Adjusted Score
Glasgow Coma Score	3	0	x 0.9368	
	4 to 5	1		
	6 to 8	2		
	9 to 12	3		
	13 to 15	4		_____
Systolic Blood Pressure (SBP)	0	0	x 0.7326	
	1 to 49	1		
	50 to 75	2		
	76 to 89	3		
	>89	4		_____
Respiratory Rate (RR) in breaths per minute (BPM)	0	0	x 0.2908	
	1 to 5	1		
	6 to 9	2		
	>29	3		
	10 to 29	4		_____
Revised Trauma Score (add 3 adjusted scores):				_____

Considerations for sending patients home from hospitals or other facilities:

- Is there enough support for the patient at home?
- What accommodations are needed for patients with disabilities?
- Is there a hospice agency able to provide immediate care for qualified patients?
- If the patient is COVID positive or a PUI, do they have safety instructions?
- Does the patient need mPOA or OOH-DNR documents to be completed?
- Does the patient have meds, supplies, & instructions for continued assessment/follow up?

ICU/ventilator inclusion criteria:

- Refer to ICU protocols and apply clinical judgment
- Requirement for invasive ventilatory support
  - Refractory hypoxemia (SpO2 <90% on non-rebreather mask or FiO2 >0.85), or
  - Respiratory acidosis (pH <7.2), or
  - Clinical evidence of impending respiratory failure, or
  - Inability to protect airway
- Hypotension (SBP <90 mmHg or relative hypotension)
  - Clinical evidence of shock (cool, clammy skin, ashen skin color, pallor, decreased peripheral pulses, and/or AMS or other evidence of end-organ failure)
  - Refractory to volume resuscitation and requiring vasopressor or inotrope support that cannot be managed in a ward setting

References:

U.S. Department of Health & Human Services Office for Civil Rights, "Emergency Preparedness: OCR Civil Rights Resources for COVID-19." https://www.hhs.gov/civil-rights/for-individuals/special-topics/emergency-preparedness/index.html (accessed 11/25/2020).

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Gholipour Baradari, et al. Comparison of Proposed Modified and Original Sequential Organ Failure Assessment Scores in Predicting ICU Mortality: A Prospective, Observational, Follow-Up Study. Scientifica 2016 (Dec 25).

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Lambden S. The SOFA score—development, utility and challenges of accurate assessment in clinical trials. Critical Care 2019;23(374).