



Crisis Care Guideline during Public Health Emergency: Allocation of Limited Resources

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I. Introduction

This document provides guidance for allocation of adult patient care resources such as intensive care beds and ventilators in the event that demand for such services outstrip resources during a public health emergency such as a viral pandemic or an acute disaster. These guidelines are in accordance with guidelines provided in the 2020 California SARS-CoV-2 Pandemic: Health Care Surge Crisis Care Guidelines¹.

Limitations to care are driven by the availability of supplies, equipment, beds, and staff.

There are several components of the ethical framework that underlie our guidelines²⁻⁶.

1. The duty to care is the fundamental obligation of providers to care for patients.
2. The duty to steward resources is the need to responsibly manage resources during periods of scarcity.
3. The duty to plan is the responsibility to plan for a foreseeable crisis.
4. Distributive justice requires that an allocation system be applied broadly and consistently to be fair to all.
5. Transparency ensures that the process of developing clinical allocation protocols is open to feedback and revision, which helps promote public trust.

Based on these five components, the following ethical considerations were used in developing the guidelines and recommendations in this document:

1. Is the health outcome used to guide allocation ethically defensible?
2. Are limited resources allocated in a way that is fair, consistent and transparent?
3. Are limited resources allocated without favoring privileged groups?
4. Have the interests of vulnerable groups been considered?
5. Are there provisions for palliative care for those who do not receive scarce resources?
6. Are the individuals who are creating the allocation algorithms free of professional and personal conflicts?

The guidelines for allocation use clinical factors to give patients who are deemed most likely to survive and benefit from treatment with scarce resources an opportunity for treatment.

Goal: The primary goal of a triage plan is to save the most lives when resources are limited. Prioritizing individuals based on clinical factors is the most equitable method to maximize the number of survivors. This triage plan incorporates ethical decision-making processes so that the duty to steward resources and limitations placed on individual care are recognized as fair and acceptable under emergency circumstances.

II. Phased Allocation of Limited Resources

As a public health emergency emerges within a community, there is a predictable strain on the healthcare system that parallels the severity and duration of the emergency. It is difficult to know exactly where a community is on the incidence curve during a surge, however clinical circumstances can offer insights as to how to best manage patients and resources.

To mitigate the risk of limiting resources too early or too late, one must recognize the phases of a crisis and the varying degrees of strain on the healthcare system. Three phases of allocation of limited resources are described below. Each phase requires different allocation of limited resources.

During normal times, adherence to normal community standards of care is intended under standard operating procedures. Conventional care includes maximization of usual resources. As resources become constrained, conventional care shifts to contingency care. In contingency care, adherence to normal community standards of care is intended, but not always achievable through normal operating procedures. This may require shifting to atypical operating procedures in order to optimize resources and provide community standard care to the fullest extent possible. Crisis care is reached when resources are too scarce to provide normal standard care for all, and the focus shifts from providing the best care to individual patients to delivering the best care to the patient population.

The three phases are as follows:

Phase I Conventional care

In this phase, a public health emergency has been declared, but there are enough standard resources (beds/ventilators, etc.) for everyone who presents for medical care. Institutional capacity has not been reached.

Phase II Contingency Care

In this phase, standard care resources have been exhausted, but there are alternative means to deliver care (e.g., transport ventilators, CPAP, improvised treatment areas, etc.). Standard capacity has been exhausted, but alternative strategies allow for an increased volume of patient care while normal standards of care are met. The following actions will be taken:

- Activation of the Triage Officer (TO) and Crisis Standards Committee for triage and evaluation of scarce resources. Patients will be classified and grouped based on the need for limited and scarce critical resources. Patients will be clinically categorized using the Sequential Organ Failure Assessment (SOFA) score⁷ for future triage if Phase III is reached based on one or more limited resources.
- When Phase II is initiated, standard resources have reached capacity and critical care resources will be deemed non-beneficial for certain conditions outlined in Table 1.
- Patients categorized in the Blue category – (SOFA>11; lowest likelihood of survival) remain eligible for all available resources.

Phase III Crisis Care

In this phase, all alternative resources have been exhausted. Allocation of scarce resources will be guided by the Crisis Standards Committee and determined by the Triage Officer acting within the framework described in this document. In consultation with the Crisis Standards Committee, the Triage Officer will make decisions about resource use for individual patients.

- Patients in the Blue category – (SOFA>11), lowest likelihood of survival and lowest priority, will not receive limited resources, but will receive medical care, palliative care, and hospice referral.

For Phases I, II and III the following steps will be followed:

1. In all phases, all patients will be evaluated for treatment.
2. In Phase I, resources will be allocated based on need.
3. In Phase II, critical, scarce and limited resources will be identified and all efforts will be made to conserve and/or acquire additional resources.
4. In Phase III, allocation of scarce and limited resources will be determined by Table 1 criteria. Although additional clinical assessments may be performed, the official SOFA assessments only occur after 48 hours of critical care or initiation of treatment with a limited resource. No formal triage decision or action may be taken until a patient's official assessment.

Triage Overview:

The triage process allocates resources through a process of inclusion/exclusion and uses a triage officer and committee to score patients for access to scarce resources. The Triage Officer will be activated before the facility reaches a crisis level of care. Activation and deactivation of the Triage Officer will depend on facility resources and needs. The Triage Officer will work with the Crisis Standards Committee to evaluate and monitor overall census, demand for resources, and supply of resources that are limited. The Triage Officer and Crisis Standards Committee will devise strategies for maximizing limited resources.

Allocation decisions will be based on SOFA and consideration of a patient's clinical status, significant medical history, and comorbid conditions that may indicate the likely benefit from use of scarce resources (Table 1 criteria).

All patients that are allocated scarce resources will be allowed a 12-24 hour initial therapeutic trial. These patients will be reevaluated every 12-48 hours.

III. Mortality Risk Assessment and Periodic Reassessment. Decision to offer Critical Care, Intensive Care Unit (ICU) Admission, mechanical ventilation and other critical resources

An ethically sound framework for healthcare during a public health emergency must balance a

patient-centered duty of care with public focused duties to promote equality and equity in distribution of risks and benefits to society. To that end, the primary goal of the allocation framework during a public healthcare emergency is to maximize benefit to populations of patients, specifically by maximizing survival to hospital discharge and beyond for as many patients as possible.

During phase II (Contingency Care), patients will be identified based on the need for limited and scarce resources. These patients will be assessed for SOFA score and clinical status. The SOFA score assists in determining a patient's likelihood of surviving from hospital admission to hospital discharge (lower scores indicate higher likelihood of benefit from critical care)⁵. SOFA scores are classified into four color-coded priority groups (Tables 3A, 3B, and 3C).

During phase III (Crisis Care), scarce resources will be allocated according to resource availability and color-coded priority groups. In the event that there are ties in priority, a lottery strategy will be used as a tie breaker (Secondary Allocation Strategy).

All patients who are allocated critical care services will be allowed a therapeutic trial of 12-48 hours to determine the benefits of therapy.

Patients with clear clinical deterioration resulting in higher SOFA scores and change of color-coded category become candidates for discontinuation of identified resource, if patients with lower scores are waiting for the same resource.

Although patients will generally be given a full 12- 48 hour trial, if a patient experiences 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 direct treatment team may then consider that the patient is no longer eligible to receive the identified resource.

IV. Decision to only Offer Intensive Symptom Management, Psychosocial Support and Palliative Care

Patients who, as a result of the triage process, do not receive scarce/limited resources or services will be offered medical care including intensive symptom management and psychosocial support.

V. Decision Not to Accept Transfers from Outside Hospitals

When demand exceeds care supply resources, the ability to accept patients from other hospitals may be severely impacted. Table 5 highlights conditions that under extraordinary circumstances warrant a decision not to accept transfers. (Allocation of resource)

VI. Inability to transfer for higher levels of care (HLOC)

During contingency and crisis status, it may be difficult, perhaps impossible to transfer patients to other facilities for procedures and services that are not available at this hospital. In this case, care will continue to be provided to the extent possible as outlined in this plan. However it should be noted that such care may be insufficient to result in resolution of the medical condition for which transfer was being sought.

VII. Code Status

Based on current literature, some patients who are intubated and receive vasopressors have a greater than 90% mortality risk¹⁴. These patients should receive priority for discussions about goals of care with available family members. In cases where family members are not available, the Bioethics Committee should be consulted to assist in decisions regarding resuscitation order status and allocation of other life sustaining resources.

VIII. Triage Officer and Crisis Care Committee

Decisions regarding allocation of scarce resources will not be made by the attending of record caring for the patient but rather by the Triage Officer. The direct treatment team interacts with and conducts the clinical evaluation of a patient and provides clinical updates to the Triage Officer at predetermined intervals. The Triage Officer has no direct contact with the patient and will examine the objective data and clinical course provided by the attending physician to determine a patient's priority level for ventilator access. Intentionally separating the roles of the direct treatment team and Triage Officer reduces conflicts, promotes objectivity and minimizes moral distress. It is important to note that the decisions of the Triage Officer are grounded in public health (community) ethics, not clinical ethics. As such, decisions of the Triage Officer are focused on achieving the greatest good for the greatest number of people.

Triage Officer

The Triage Officer will be appointed by the Chief Medical Officer and Chief Executive Officer. Desirable qualities include: integrity, no evident conflict of interest, strong leadership skills, and effective communication and conflict resolution skills. The Triage Officer will be a licensed physician.

The Triage Officer will oversee the triage process and be the ultimate decision maker about resource allocation during a crisis. Triage decisions will be made in conjunction with and informed by hospital leadership, the Crisis Standards Committee, medical and nursing leadership, and department leadership along with spiritual care and social work.

The Triage Officer will designate members of the Crisis Standards Committee in consultation with the Chief Medical Officer.

When activated, the Triage Officer will work with the Crisis Standards Committee to monitor and evaluate the need for scarce resources. The Triage Officer will work to optimize allocation of available resources. The Triage Officer has the responsibility and authority to apply the principles and processes of this document toward decisions regarding which patients will receive the highest priority for critical care resources. The Triage Officer is also empowered to make decisions regarding reallocation of critical care resources that have previously been allocated to patients, again relying upon the principles and processes outlined in this document. In making these decisions, the Triage Officer will not use principles or beliefs extraneous to this document.

The roster of Triage Officer and back-up support should be large enough to ensure that a Triage Officer will be available at all times and with sufficient rest periods between shifts. The Triage Officer on duty will oversee the triage process, assess the objective data (i.e., SOFA score) from all patients eligible for scarce resource allocation, assign a level of priority for each, and communicate the level of priority to the appropriate treating physicians. The on-duty Triage Officer is expected to make decisions according to the allocation framework described below, designed to benefit the greatest number of patients, and not necessarily the best for each individual patient. The level of priority score for each patient will be decided by majority determination (using Table 6A, 6B and 7).

Crisis Standards Committee

The Crisis Standards Committee will consist of physicians, nursing, respiratory therapy, social workers, bioethics committee and spiritual care representation. The Crisis Standards Committee will advise and update the Triage Officer about available resources and limitations. The Crisis Standards Committee will also assist in the evaluation of patients and limited resources.

The Hospital will appoint members of a Crisis Data Team to report to the Crisis Standards Committee. These team members can be nurses with acute care experience, other clinical figures or members of administration. For every patient under consideration for allocation of scarce resources, the members of this team will obtain the objective data required to calculate an accurate SOFA score. In collaboration with the patient's attending of record the following will be obtained:

- PaO₂/FiO₂ ratio
- Glasgow Coma Scale
- latest blood pressure and use of vasopressors

- latest laboratory values including bilirubin, platelet count and creatinine
- other significant clinical events

The role of the Crisis Data Team and Crisis Standards Committee is to provide information to the Triage Officer to help facilitate and support the decision-making process. A representative from hospital administration should also be linked to the team, in order to help supervise maintenance of accurate records of triage scores and to serve as a liaison with hospital leadership.

The Triage Officer and the Crisis Data Team members should function in shifts. The hours and number of shifts will be determined by availability of staff. The Triage Officer's decisions and supporting documentation should be reported daily to appropriate hospital leadership and to the Hospital Incident Command.

Triage Process

The Triage Officer on duty will use the described SOFA scoring system to determine color-coded priority rankings of all patients eligible to receive scarce critical care resources. The Triage Officer will also consider other indicators of clinical status (Table 1). For patients already being supported by the scarce resource, the evaluation will include reassessment with recalculation of SOFA score to evaluate for clinical improvement or worsening at 12 hours and 48 hours after allocation of resources.

The Triage Officer on duty may encounter a situation where there are several patients in the highest priority who have an equal or near equal likelihood of survival and therefore are equally eligible for a critical, scarce or limited resource. In this circumstance, a secondary allocation system will be utilized. The secondary allocation system will use a lottery strategy.

The Triage Officer will review the priority of all patients and will communicate with the clinical teams immediately after a decision is made regarding allocation or reallocation of a critical care resource.

Communication of triage decisions to patients and families

The process of allocation will be fully disclosed to patients and family members. Potential for triage and resource allocation will be explained to patient and families at the time of admission during the crisis care phase. Communication and disclosure of triage decisions to patients and family members are necessary components of a fair and respectful allocation process. The Triage Officer will inform the attending of record about allocation decisions. The Triage Officer and attending will collaborate to inform patients and family members about decisions. Communication will include the methods by which allocation decisions were made, the role of

the Triage Officer, and the extraordinary emergency circumstances which necessitate crisis care decisions. The Triage Officer is responsible for communication to facility leadership. It may be useful to explain the medical factors that informed the decision, as well as the factors that were not relevant (e.g., race, ethnicity, gender, insurance status, perceptions of social worth, immigration status, etc.). If resources permit, a spiritual care coordinator or social worker should be present or available to provide ongoing support to the patient and family.

Triage Appeals Committee and Appeals Process

Decisions to withdraw or withhold a critical or scarce resource from a patient who is already receiving it may cause heightened moral concern. It is possible that patients, families or clinicians will challenge individual triage decisions. There should be a process for appealing decisions to withdraw or reallocate critical care beds or services.

The Triage Appeals Committee is made up of at least three individuals recruited from the following groups: hospital administration, hospital legal counsel, medical leadership, nursing leadership, a hospital ethics committee or consult service and/or members of an institution's ethics faculty. Three committee members are needed for a quorum to render a decision using a simple majority vote. The process can take place by telephone or in person, and the outcome will be promptly communicated to whoever brought the appeal.

Elements of this appeals process should include:

- The appellants will explain to the attending of record the grounds for their appeal.
- The attending of record will notify the Triage Appeals Committee of the appeal.
- The Triage Appeals Committee will review the appeal in real time.
- Appeals based on an objection to the overall allocation framework will not be granted.
- The Triage Appeals Committee will recalculate SOFA scores, and review clinical criteria and the use of a tiebreaker; this does not mean lotteries will be repeated.
- The Triage Appeals Committee will convey the ruling to the attending of record and the appellant.
- The ruling of the Triage Appeals Committee will be final.

Periodically, the Triage Appeals Committee should retrospectively evaluate whether the review process is consistent with effective, fair, and timely application of the allocation framework.

In the event that further reconsideration is desired, the Triage Officer will confer with the facility CEO (or designee) who is responsible for making the final decision. When circumstances permit, the CEO or their designee should be willing to speak to a family regarding the decision if requested.

IX. Crisis Recognition/Point of Activation

Activation of this protocol must be preceded by efforts to utilize existing resources and procure as many anticipated resources as possible. These actions should include but are not limited to: discontinuing elective surgeries, adhering to strict ICU admission criteria, increasing inventory of key equipment and medications, opening additional treatment areas, restructuring clinical work flows and assignments, recruitment of additional care providers, and optimizing staffing levels through flexing of provider-to-patient ratios. In the setting of limited resources and strain to the healthcare delivery system, facilities are expected to actively work with their healthcare networks, local healthcare coalition, local public health, and their local Medical Health Operational Area Coordinator (MHOAC) for supply, equipment, and staffing support. It is only after all mentioned strategies and resources have been exhausted that initiation of crisis care is acceptable. The decision to implement crisis care will be made by the Chief Executive Officer, Chief Medical Officer, and Chief Nursing Officer. Local and state public health agencies will be notified when the decision is made.

The protocol contained within Crisis Care Guideline is formally activated at the point where non-standard resources are required for a sustained period of time to meet the demand to care for patients, specifically when one of the following circumstances exist:

1. All standard ventilators are in use; only alternative ventilators are available for additional patients
2. Additional improvised bed/staffing strategies are required to manage increased patient volumes
3. Inadequate life-sustaining technology such as ventilators and dialysis capabilities for patients that require them
4. Inadequate supplies of medication or supplies that cannot be effectively conserved or substituted without risk of disability or death
5. Damage to infrastructure affecting critical systems and presenting a safety issue to staff/patients
6. Inability to safely increase staff to patient ratios or broaden supervisory responsibilities
 - a. Examples: increase in patient safety events or medical errors
7. Lack of qualified staff for specific care areas—especially those with high life safety impact
8. Epidemiology projections exceed surge capacity of facility for space or specific capability (e.g., critical care, equipment and treatment space)
9. Sustained inability to transfer for Higher Level of Care for treatment necessary for life saving services not available

X. Crisis Care Guideline Tables

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Table 1: Phase II/III Criteria Determination for Ineligibility to Receive Limited, Scarce or Critical Resources

- POLST (Provider Orders for Life-Sustaining Treatment)¹⁶ with a DNR and comfort focused treatment
- Current Hospice or Hospice eligible (Table 7)
- Cardiac Arrest:
 - Unwitnessed arrest
 - Recurrent arrest with hemodynamic instability
 - Arrest unresponsive to standard ACLS interventions after 20 minutes
- Irreversible hypotension unresponsive to fluid resuscitation and vasopressor therapy
- Persistent coma or vegetative state (Modified Rankin Score ≥ 5 ; Table 8)
- Known severe dementia who meets Hospice eligibility criteria (Table 9 Figure 1 and 2)
- Acute severe neurologic event such intracranial hemorrhage or acute stroke with minimal chance of recovery (neurosurgeon or neurology assessment)
- Incurable adult metastatic malignant disease
- Severe acute trauma (Appendix A)
- Severe burns with minimal chance of survival. Coordinate with the burn center (Appendix A)
- SOFA score >11

Table 2: SOFA Scoring

Respiratory system, PaO ₂ /FiO ₂ (mmHg)	SOFA score
> 400	0
< 400	1
< 300	2
< 200 with respiratory support	3
< 100 with respiratory support	4
Nervous system, Glasgow Coma Scale	
15	0
13–14	1
10–12	2
6–9	3
< 6	4
Cardiovascular system, Mean Arterial Pressure (MAP) OR administration of vasopressors required	
MAP > 70 mmHg	0
MAP < 70 mm/Hg	1
Dopamine ≤ 5 µg/kg/min or dobutamine (any dose)	2
Dopamine > 5 µg/kg/min OR epinephrine ≤ 0.1 µg/kg/min OR norepinephrine ≤ 0.1 µg/kg/min	3
Dopamine > 15 µh/kg/min OR epinephrine > 0.1 µg/kg/min OR norepinephrine > 0.1 µg/kg/min	4
Liver, Bilirubin (mg/dl) {µmol/L}	
< 1.2 {< 20}	0
1.2–1.9 {20–32}	1
2.0–5.9 {33–101}	2
6.0–11.9 {102–204}	3
> 12.0 {> 204}	4
Coagulation, Platelets ×10 ³ /ml	
> 150	0
< 150	1

< 100	2
< 50	3
< 20	4
Kidneys, Creatinine (mg/dl) {μmol/L}; urine output	
< 1.2 {< 110}	0
1.2–1.9 {110–170}	1
2.0–3.4 {171–299}	2
3.5–4.9 {300–440} (or urine output < 500 ml/day)	3
> 5.0 {> 440}; urine output < 200 ml/day	4



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Table 3A: Phase I Assessment at presentation (hour 0)

Assessment of Mortality Risk/ Organ Failure	Color Code and Level of Access
<p>No significant organ failure</p> <p>AND/OR</p> <p>No significant requirement for lifesaving resources</p>	<p>GREEN</p> <p>Use alternative forms of medical intervention or defer or discharge</p> <p>Reassess as needed</p>
<p>SOFA \leq 7</p> <p>OR</p> <p>Single organ failure</p>	<p>RED</p> <p>Highest</p> <p>Admission to Intensive Care Unit Ventilator Allocation</p>
<p>SOFA 8-11</p>	<p>YELLOW</p> <p>Intermediate</p> <p>Admission to Intensive Care Unit Ventilator Allocation</p>
<p>SOFA >11 and/or Table 1 criteria</p>	<p>BLUE</p> <p>Admission to Intensive Care Unit Ventilator allocation</p>

Table 3B: Phase 1 Assessment at hour 12

Assessment of Mortality Risk/ Organ Failure	Color Code and Level of Access
<p>No significant organ failure</p> <p>AND/OR</p> <p>No significant requirement for lifesaving resources</p>	<p>GREEN</p> <p>Use alternative forms of medical intervention or defer or discharge</p> <p>Reassess as needed</p>
<p>SOFA \leq 7</p> <p>OR</p> <p>Single organ failure</p>	<p>RED</p> <p>Highest</p> <p>Admission to Intensive Care Unit</p> <p>Ventilator Allocation</p>
<p>SOFA 8-11</p>	<p>YELLOW</p> <p>Intermediate</p> <p>Admission to Intensive Care Unit</p> <p>Ventilator Allocation</p>
<p>SOFA >11 and/or Table 1 criteria</p>	<p>BLUE</p> <p>Admission to Intensive Care Unit</p> <p>Ventilator allocation</p>

Table 3C: Phase 1 Assessment at hour 48

Assessment of Mortality Risk/ Organ Failure	Color Code and Level of Access
<p>No significant organ failure</p> <p>AND/OR</p> <p>No significant requirement for lifesaving resources</p>	<p>GREEN</p> <p>Use alternative forms of medical intervention or defer or discharge</p> <p>Reassess as needed</p>
<p>SOFA \leq 7</p> <p>OR</p> <p>Single organ failure</p>	<p>RED</p> <p>Highest</p> <p>Admission to Intensive Care Unit</p> <p>Ventilator Allocation</p>
<p>SOFA 8-11</p>	<p>YELLOW</p> <p>Intermediate</p> <p>Admission to Intensive Care Unit</p> <p>Ventilator Allocation</p>
<p>SOFA >11 and/or Table 1 criteria</p>	<p>BLUE</p> <p>Admission to Intensive Care Unit</p> <p>Ventilator allocation</p>

Table 4A: Phase II/III Assessment at hour (0)

Assessment of Mortality Risk/Organ Failure	Color Code and Level of Access
<p>No significant organ failure</p> <p>AND/OR</p> <p>No significant requirement for lifesaving resources</p>	<p>GREEN</p> <p>Use alternative forms of medical intervention or defer or discharge</p> <p>Reassess as needed</p>
<p>SOFA ≤ 7</p> <p>OR</p> <p>Single organ failure</p>	<p>RED</p> <p>Highest Priority</p> <p>ICU/use ventilators available</p>
<p>SOFA 8-11</p>	<p>YELLOW</p> <p>Intermediate Priority</p> <p>ICU/use ventilators as available</p>
<p>SOFA >11 and/or Table 1 Criteria</p>	<p>BLUE</p> <p>Phase II</p> <p>ICU/ventilators as available</p> <p>Phase III</p> <p>NO VENTILATOR PROVIDED</p> <p>Use alternative forms of medical intervention, palliative care, Hospice referral</p>

Table 4B: Phase II/III Assessment at hour 12

Assessment of Mortality Risk/Organ Failure	Color Code and Level of Access
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<p>No significant organ failure</p> <p>AND/OR</p> <p>No significant requirement for lifesaving resources</p>	<p>GREEN</p> <p>Use alternative forms of medical intervention or defer or discharge</p> <p>Reassess as needed</p>
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<p>SOFA \leq 7</p> <p>OR</p> <p>Single organ failure</p>	<p>RED</p> <p>Highest Priority</p> <p>ICU/use ventilators available</p>
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<p>SOFA \leq 7 AND worsening or no improvement from 48 hours</p> <p>SOFA 8-11 AND no improvement from 48 hours</p>	<p>YELLOW</p> <p>Intermediate Priority</p> <p>ICU/use ventilators as available</p>
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<p>SOFA $>$ 11 and/or Table 1 Criteria</p>	<p>BLUE</p> <p>Phase II</p> <p>ICU/ventilators as available</p> <p>Phase III</p> <p>NO VENTILATOR PROVIDED</p> <p>Use alternative forms of medical intervention, palliative care, Hospice referral</p>
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Table 4C: Phase II/III Assessment at hour 48

Assessment of Mortality Risk/Organ Failure	Color Code and Level of Access
<p>No significant organ failure</p> <p>AND/OR</p> <p>No significant requirement for lifesaving resources</p>	<p>GREEN</p> <p>Use alternative forms of medical intervention or defer or discharge</p> <p>Reassess as needed</p>
<p>SOFA \leq 7</p> <p>OR</p> <p>Single organ failure</p>	<p>RED</p> <p>Highest Priority</p> <p>ICU/use ventilators available</p>
<p>SOFA \leq 7 AND worsening or no improvement from 48 hours</p> <p>SOFA 8-11 AND no improvement from 48 hours</p>	<p>YELLOW</p> <p>Intermediate Priority</p> <p>ICU/use ventilators as available</p>
<p>SOFA >11 and/or Table 1 Criteria</p>	<p>BLUE</p> <p>Phase II</p> <p>ICU/ventilators as available</p> <p>Phase III</p> <p>NO VENTILATOR PROVIDED</p> <p>Use alternative forms of medical intervention, palliative care, Hospice referral</p>

Table 5A: Phase I Hospital and ICU/Ventilator Admission Triage Algorithm

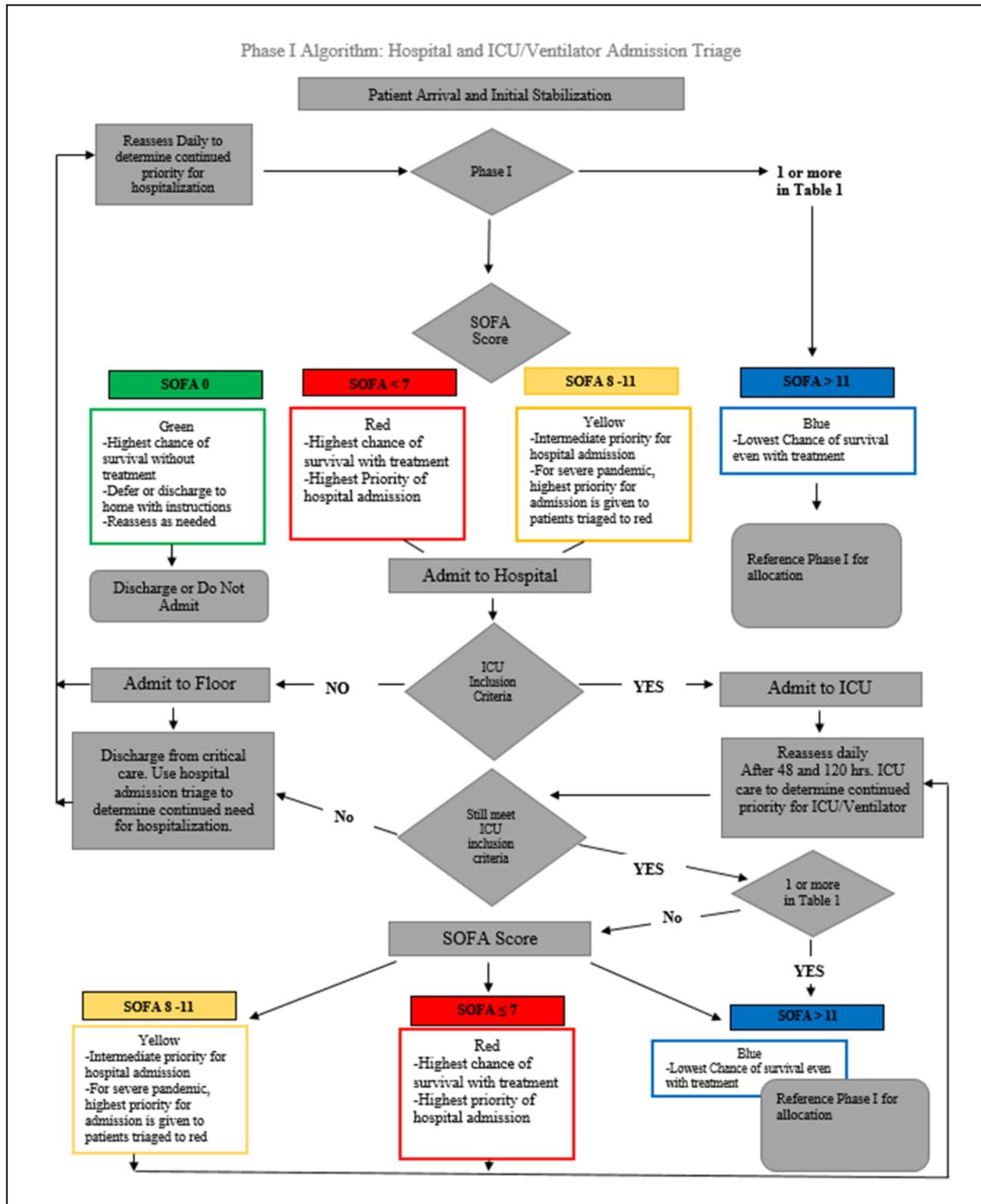


Table 5B: Phase II/III Hospital and ICU/Ventilator Admission Triage Algorithm

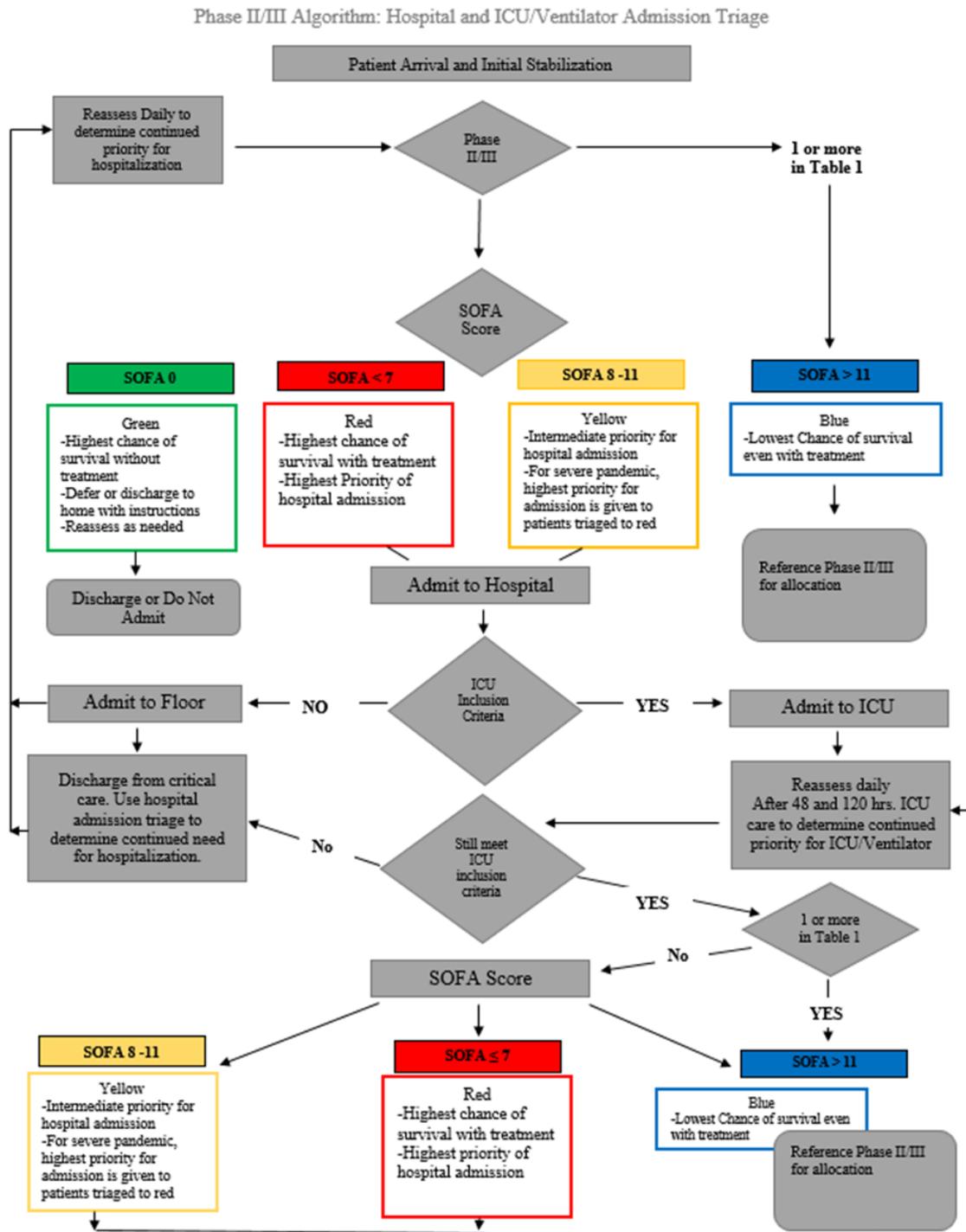


Table 6: Triage Screening Document for Triage Committee Phase II/III Criteria

Determination for Ineligibility to Receive Limited, Scarce or Critical Resources

- POLST¹⁶ with a DNR and comfort focused treatment
- Current Hospice or Hospice eligible (Table 7)
- Cardiac Arrest:
 - Unwitnessed arrest
 - Recurrent arrest with hemodynamic instability
 - Arrest unresponsive to standard ACLS interventions after 20 minutes
- Irreversible hypotension unresponsive to fluid resuscitation and vasopressor therapy
- Persistent coma or vegetative state (Modified Rankin Score ≥ 5 ; Table 8)
- Known severe Dementia who meets Hospice eligibility criteria (Table 9 Figure 1 and 2)
- Acute severe neurologic event such intracranial hemorrhage or acute stroke with minimal chance of recovery (neurosurgeon or neurology assessment)
- Incurable adult metastatic malignant disease
- Severe acute trauma (Appendix A)
- Severe burns with minimal chance of survival. Coordinate with the burn center (Appendix B)
- SOFA score >11

SOFA score	0	1	2	3	4
Respiration PaO ₂ /FIO ₂ (mm Hg) SaO ₂ /FIO ₂	>400	<400 221–301	<300 142–220	<200 67–141	<100 <67
Coagulation Platelets 10 ³ /mm ³	>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^b Hypotension	No hypotension	MAP <70	Dopamine \leq 5 or dobutamine (any)	Dopamine >5 or norepinephrine \leq 0.1	Dopamine >15 or norepinephrine >0.1
CNS Glasgow Coma Score	15	13–14	10–12	6–9	<6
Renal Creatinine (mg/dL) or urine output (mL/d)	<1.2	1.2–1.9	2.0–3.4	3.5–4.9 or <500	>5.0 or <200

Triage Committee Assessment:

Date:

Time:

Assessment Hour: T₀ / T₄₈ / T₁₂₀

SOFA Score (+/- Vasopressors):

Triage Outcome: **Green** **Red** **Yellow** **Blue**

Sequential Organ Failure Assessment:

Table 7: Medicare Hospice Eligibility Criteria (page 1 of 2)

Functional Assessment Scale (FAST)					
1	No difficulty either subjectively or objectively.				
2	Complains of forgetting location of objects. Subjective work difficulties.				
3	Decreased job functioning evident to co-workers. Difficulty in traveling to new locations. Decreased organizational capacity. *				
4	Decreased ability to perform complex task, (e.g., planning dinner for guests, handling personal finances, such as forgetting to pay bills, etc.)				
5	Requires assistance in choosing proper clothing to wear for the day, season or occasion, (e.g. pt may wear the same clothing repeatedly, unless supervised.)*				
6	Occasionally or more frequently over the past weeks. * for the following A) Improperly putting on clothes without assistance or cueing . B) Unable to bathe properly (not able to choose proper water temp) C) Inability to handle mechanics of toileting (e.g., forget to flush the toilet, does not wipe properly or properly dispose of toilet tissue) D) Urinary incontinence E) Fecal incontinence				
7	A) Ability to speak limited to approximately ≤ 6 intelligible different words in the course of an average day or in the course of an intensive interview. B) Speech ability is limited to the use of a single intelligible word in an average day or in the course of an intensive interview C) Ambulatory ability is lost (cannot walk without personal assistance.) D) Cannot sit up without assistance (e.g., the individual will fall over if there are not lateral rests [arms] on the chair.) E) Loss of ability to smile. F) Loss of ability to hold up head independently.				
*Scored primarily on information obtained from a knowledgeable informant. Psychopharmacology Bulletin, 1988 24:653-659.					
Palliative Performance Scale (PPS)					
%	Amulation	Activity and Evidence of Disease	Self-Care	Intake	Level of Conscious
100	Full	Normal activity, no evidence of disease	Full	Normal	Full
90	Full	Normal activity, some evidence of disease	Full	Normal	Full
80	Full	Normal activity with effort, some evidence of disease	Full	Normal or reduced	Full
70	Reduced	Unable to do normal work, some evidence of disease	Full	Normal or reduced	Full
60	Reduced	Unable to do hobby or some housework, significant disease	Occasional assist necessary	Normal or reduced	Full or confusion
50	Mainly stable	Unable to do any work, extensive disease	Considerable assistance required	Normal or reduced	Full or confusion
40	Mainly in bed	Unable to do any work, extensive disease	Mainly assistance	Normal or reduced	Full, drowsy, or confusion
30	Totally bed bound	Unable to do any work, extensive disease	Total care	Reduced	Full, drowsy, or confusion
20	Totally bed bound	Unable to do any work, extensive disease	Total care	Minimal sips	Full, drowsy, or confusion
10	Totally bed bound	Unable to do any work, extensive disease	Total care	Month care only	Drowsy or coma
0	Death				

Hospice Card	
<p>A hospice is a program designed to care for the dying and their special needs. Among these services all hospice programs should include:</p> <p>(a) Control of pain and other symptoms through medication, environmental adjustment and education.</p> <p>(b) Psychosocial support for both the patient and family, including all phases from diagnosis through bereavement.</p> <p>(c) Medical services commensurate with the needs of the patient.</p> <p>(d) Interdisciplinary "team" approach to patient care, patient/ and family support, and education.</p> <p>(e) Integration into existing facilities where possible.</p> <p>(f) Specially trained personnel with expertise in care of the dying and their families.</p>	
Hospice Eligibility Criteria	
<p>GENERAL (NON-SPECIFIC) TERMINAL ILLNESS</p> <p>1. Terminal condition cannot be attributed to a single specific illness. And</p> <p>2. Rapid decline over past 3-6months Evidenced by: Progression of disease evidenced by sx, signs & test results Decline in PPS to $\leq 50\%$ Involuntary weight loss $>10\%$ and/or Albumin <2.5 (helpful)</p>	
<p>ADULT FAILURE TO THRIVE</p> <p>Patient meets ALL of the following:</p> <ul style="list-style-type: none"> Palliative performance Scale $\leq 40\%$ BMI <22 Pt refusing enteral or parenteral nutrition support or has not responded to such nutritional support, despite adequate caloric intake 	
<p>CANCER</p> <p>Patient meets ALL of the following:</p> <p>1. Clinical findings of malignancy with widespread, aggressive or progressive disease as evidenced by increasing sx, worsening lab values and/or evidence of metastatic disease</p> <p>2. Palliative performance Scale (PPS) $\leq 70\%$</p> <p>3. Refuses further life-prolonging therapy OR continues to decline in spite of definitive therapy</p> <p>Supporting documentation includes:</p> <ul style="list-style-type: none"> Hypercalcemia > 12 Cachexia or weight loss of 5% in past 3 months Recurrent disease after surgery/radiation/chemotherapy Signs and sx of advanced disease (e.g. nausea, requirement for transfusions, malignant ascites or pleural effusion, etc.) 	
<p>DEMENTIA</p> <p>The patient has both 1 and 2:</p> <p>1. Stage 7C or beyond according to the FAST Scale</p> <p>AND</p> <p>2. One or more of the following conditions in the 12 months:</p> <ul style="list-style-type: none"> Aspiration pneumonia Pyelonephritis Septicemia Multiple pressure ulcers (stage 3-4) Recurrent Fever <p>Other significant condition that suggests a limited prognosis</p> <p>Inability to maintain sufficient fluid and calorie intake in the past 6months (10% weight loss or albumin < 2.5 gm/dl)</p>	

Table 7: Medicare Hospice Eligibility Criteria¹⁷ (page 2 of 2)

<p>HEART DISEASE The patient has 1 and either 2 or 3. 1. CHF with NYHA Class IV* sx and both : Significant sx at rest Inability to carry out even minimal physical activity without dyspnea or angina 2. Patient is optimally treated (ie diuretics, vasodilators, ACEI, or hydralazine and nitrates) 3. The patient has angina pectoris at rest, resistant to standard nitrate therapy, and is either not a candidate for/or has declined invasive procedures. Supporting documentation includes: EF \leq 20%, Treatment resistant symptomatic dysrhythmias h/o cardiac related syncope, CVA 2/2 cardiac embolism H/o cardiac resuscitation, concomitant HIV disease</p>  <p>HIV/AIDS The patient has either 1A or 1B and 2 and 3. 1A. CD4+ < 25 cells/mcL OR 1B. Viral load > 100,000 AND 2. At least one (1) : CNS lymphoma, untreated or refractory wasting (loss of > 33% lean body mass), (MAC) bacteremia, Progressive multifocal leukoencephalopathy Systemic lymphoma , visceral KS, Renal failure no HD, Cryptosporidium infection, Refractory toxoplasmosis AND 3. PPS* of < 50%</p> <p>LIVER DISEASE The patient has both 1 and 2. 1. End stage liver disease as demonstrated by A or B, & C: A. PT> 5 sec OR B. INR > 1.5 AND C. Serum albumin <2.5 gm / dl AND 2. One or more of the following conditions: Refractory Ascites, h/o spontaneous bacterial peritonitis, Hepatorenal syndrome , refractory hepatic encephalopathy, h/o recurrent variceal bleeding Supporting Documents includes: Progressive malnutrition, Muscle wasting with dec. strength. Ongoing alcoholism (> 80 gm ethanol/day), Hepatocellular CA HBsAg positive, Hep. C refractory to treatment</p>  <p>PULMONARY DISEASE Severe chronic lung disease as documented by 1, 2, and 3. 1. The patient has all of the following: Disabling dyspnea at rest Little of no response to bronchodilators Decreased functional capacity (e.g. bed to chair existence, fatigue and cough) AND 2. Progression of disease as evidenced by a recent h/o increasing office, home, or ED visits and/or hospitalizations for pulmonary infection and/or respiratory failure. AND 3. Documentation within the past 3 months \geq1: Hypoxemia at rest on room air (pO₂ < 55 mmHg by ABG) or oxygen saturation < 88% Hypercapnia evidenced by pCO₂ > 50 mmHg Supporting documentation includes: Cor pulmonal and right heart failure Unintentional progressive weight loss</p> 	<p>NEUROLOGIC DISEASE (chronic degenerative conditions such as ALS, Parkinson's, Muscular Dystrophy, Myasthenia Gravis or Multiple Sclerosis) The patient must meet at least one of the following criteria (1 or 2A or 2B): 1. <u>Critically impaired breathing capacity</u>, with all: Dyspnea at rest, Vital capacity < 30%, Need O₂ at rest, patient refuses artificial ventilation OR 2. <u>Rapid disease progression</u> with either A or B below: Progression from : independent ambulation to wheelchair or bed-bound status normal to barely intelligible or unintelligible speech normal to pureed diet independence in most ADLs to needing major assistance in all ADLs AND A. <u>Critical nutritional impairment</u> demonstrated by all of the following in the preceding 12 months: Oral intake of nutrients and fluids insufficient to sustain life Continuing weight loss Dehydration or hypovolemia Absence of artificial feeding methods OR B. <u>Life-threatening complications</u> in the past 12 months as demonstrated by \geq1: Recurrent aspiration pneumonia, Pyelonephritis, Sepsis, Recurrent fever, Stage 3 or 4 pressure ulcer(s)</p>  <p>RENAL FAILURE The patient has 1, 2, and 3. 1. The pat is not seeking dialysis or renal transplant AND 2. Creatinine clearance* is < 10 cc/min (<15 for diabetics) AND 3. Serum creatinine > 8.0 mg/dl (> 6.0 mg/dl for diabetics) Supporting documentation for chronic renal failure includes: Uremia, Oliguria (urine output < 400 cc in 24 hours), Intractable hyperkalemia (> 7.0), Uremic pericarditis, Hepatorenal syndrome, Intractable fluid overload. Supporting documentation for acute renal failure includes: Mechanical ventilation, Malignancy (other organ system) Chronic lung disease, Advanced cardiac disease, Advanced liver disease</p>  <p>STROKE OR COMA The patient has both 1 and 2. 1. Poor functional status PPS* \leq 40% AND 2. Poor nutritional status with inability to maintain sufficient fluid and calorie intake with \geq1 of the following: \geq 10% weight loss in past 6 months \geq7.5% weight loss in past 3 months Serum albumin <2.5 gm/dl Current history of pulmonary aspiration without effective response to speech therapy interventions to improve dysphagia and decrease aspiration events Supporting documentation includes: Coma (any etiology) with 3 of the following on the third (3rd) day of coma: Abnormal brain stem response Absent verbal responses Absent withdrawal response to pain Serum creatinine > 1.5 gm/dl</p>
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Table 8: Modified Rankin Scale

Modified Rankin Scale	
Score	Description
0	No symptoms at all
1	No significant disability despite symptoms; able to carry out all usual duties and activities
2	Slight disability; unable to carry out all previous activities, but able to look after own affairs without assistance
3	Moderate disability; requiring some help, but able to walk without assistance
4	Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance
5	Severe disability; bedridden, incontinent, and requiring constant nursing care and attention
6	Dead

Table 9: FAST (Figure 1) and Hospice Eligibility Criteria (Figure 2)

Functional Assessment Scale (FAST)	
1	No difficulty either subjectively or objectively.
2	Complains of forgetting location of objects. Subjective work difficulties.
3	Decreased job functioning evident to co-workers. Difficulty in traveling to new locations. Decreased organizational capacity. *
4	Decreased ability to perform complex task, (e.g., planning dinner for guests, handling personal finances, such as forgetting to pay bills, etc.)
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7	A) Ability to speak limited to approximately ≤ 6 intelligible different words in the course of an average day or in the course of an intensive interview. B) Speech ability is limited to the use of a single intelligible word in an average day or in the course of an intensive interview C) Ambulatory ability is lost (cannot walk without personal assistance.) D) Cannot sit up without assistance (e.g., the individual will fall over if there are not lateral rests [arms] on the chair.) E) Loss of ability to smile. F) Loss of ability to hold up head independently.
*Scored primarily on information obtained from a knowledgeable informant. Psychopharmacology Bulletin, 1988 24:653-659.	

DEMENTIA

The patient has both 1 and 2:

1. Stage 7C or beyond according to the FAST Scale

AND

2. One or more of the following conditions in the 12 months:

Aspiration pneumonia

Pyelonephritis

Septicemia

Multiple pressure ulcers (stage 3-4)

Recurrent Fever

Other significant condition that suggests a limited prognosis

Inability to maintain sufficient fluid and calorie intake in the past 6months (10% weight loss or albumin < 2.5 gm/dl)



**MLK Community
Healthcare**

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