

Crisis Care Plan

This is a companion tool to the California SARS-CoV-2 Pandemic Crisis Care Guidelines; Concept of Operations, Healthcare Facility Surge Operations and Crisis Care. Prior to plan creation, review the Ethical Framework located in the California Department of Public Health (CDPH) Ethical Considerations section of the Crisis Care guidelines.

Policy/Reference Number: **Final Draft 01/2021 RF**

Purpose

To describe the philosophy and operational practice of Salinas Valley Memorial Hospital during an incident when resources are scarce in the face of demand and changes in practice are required, shifting focus from the individual patient to the collective need of the community.

Scope

This is an annex to the facility Emergency Operations Plan (EOP) and provides additional details relevant to an incident that involves an alteration to the standard of care given. Surge capacity expansion plans and other portions of the EOP detail some Crisis Care (CC) responses. This annex is for a pervasive or catastrophic public health event where proactive decisions about resource triage may be required. CC principles and processes may also be used for isolated issues, such as drug shortages, but the focus of the annex is on an overwhelmed healthcare facility.

Planning Assumptions

1. Our facility is actively coordinating resource requests within our health care system and health care coalition (HCC).
2. Our facility has implemented the Hospital Incident Command System (HICS), and an incident management team was activated due to the pervasive nature of the response.
3. Our facility surge planning and conservation methods have exceeded the contingency capabilities.

Concept of Operations

Trigger to Activate

During a pervasive or catastrophic public health emergency, the following conditions are met:

1. Resources and/or infrastructure are critically limited (e.g. inadequate staff or equipment).

2. Maximum surge capacity has been met and no other strategies can address the situation.
3. Maximum efforts to conserve, substitute, adapt and reuse materials are insufficient to meet needs and require ongoing, proactive planning.

Notifications

- Hospital Incident Commander will notify:
 - The liaison officer or planning section chief to notify the MHOAC and regional CDPH.
- Hospital Incident Commander will notify the logistics section chief, liaison officer, or planning section chief to make requests at <https://apps.co.monterey.ca.us/emsrequest> to request resources as needed.
- If needs cannot be met in the region the logistics section chief, liaison officer, or planning section chief will:
 - Notify California Department of Public Health (CDPH)
 - Notify other health care facilities in the HCC of the situation.
 - Notify jurisdictional MHOAC, emergency management and public health.
 - If needed, establish a HCC unified response structure inclusive of all HCC partners.

Pre-Identified Trigger Points

The following are pre-identified actions and trigger points. We will:

4. Cancel elective procedures when
 - a. ICU staffing is not able to meet demands,
 - b. ICU bed Capacity does not meet demand,
 - c. PACU RN's are needed for ICU and progressive care demand.
5. Stockpile or order more supplies when
 - a. National or regional shortages are anticipated,
 - b. Critical item burn rates may compromise patient care ,
 - c. Surge of patients exceeding normal inventories is anticipated.
6. Implement staffing changes when
 - a. Patient care needs indicate modifications are needed,
 - b. Surge ICU capacity exceeds 150%,
 - c. Available staffing is insufficient to meet demands.
7. Implement triage when
 - a. On Code Triage or Level 3 Emergency Operations Plan activation,
 - b. HICS team is activated and Incident Commander requests,
 - c. Contingency Care or Crisis Care are activated.
8. Temporarily close to new admissions and/or transfers when
 - a. Crisis Care is activated, alternate care sites and/or surge spaces are overwhelmed.

- b. There is no means to care for additional patients,
- c. Loss of infrastructure to support care or uncontrolled outbreak.

Patient Care Strategies for Scarce Resource Situations

Short-Term Strategies

Short-term strategies to increase health care facility capacity already should have been implemented. Many of these strategies are located in the CDPH Patient Care Strategies for Scarce Resource Situations. If the resource shortages can be quickly addressed (e.g. within hours to days) by these strategies, crisis care may not be necessary or may be very brief. Short-term strategies are situational and include:

- Rapid discharge of emergency department and outpatients that can safely continue their care at home.
- Rapid assessment and early discharge of inpatients (surge discharge).
- Transfer of patients to other institutions in region/state/adjoining states.
- Transfer of patients to alternate facilities (if they are available)—these may be permanent (long-term care facility) or temporary (alternate care site), or usual health care facilities in an adjacent region/state.
- Cancellation of elective surgeries and procedures, with re-assignment of surgical staff and space (e.g., post-anesthesia care area, endoscopy suites).
- Reduction of usual use of elective imaging, laboratory testing and other ancillary services.
- Expansion of critical care capacity by placing select ventilated patients on monitored/stepdown beds, using pulse oximetry (with high/low rate alarms) in lieu of cardiac monitors, or relying on ventilator alarms (which should alert for disconnect, high pressure, and apnea) for ventilated patients, with spot oximetry checks.
- Call-in of appropriate staff.
- Changes in staff scheduling or changes in staff assignments.
 - Examples: May elect to change duration of shifts or alter staffing ratios – however, longer shift duration during an infectious event may be detrimental to staff who may not adhere to personal protective equipment (PPE) recommendations when fatigued or all nurse educators work clinical shifts, etc.
- Changes in documentation requirements and release from administrative, teaching, and other responsibilities.
- Request for supplemental staff from partner hospitals and clinics.
- Conversion of single rooms to double rooms or double rooms to triple rooms if possible.
- Designation of units or areas of the facility that can be converted to negative pressure/isolated from the rest of the ventilation system for cohorting contagious patients.

- Use of cots and beds in flat space areas (classrooms, gymnasiums, lobbies) within the health care facility for non-critical patient care.
- Communication with staff and public, educate staff about specifics of incident and provide just-in-time training on specialty patient care (e.g. burns, highly contagious infections, toxic exposures). Develop web-based modes of communication and education for staff.
- Provision of behavioral health support for patients and family members.
- Provision of staff support including feeding, behavioral health support, family/pet support and access to supplies (gas, groceries, etc.).
- Adaptation or reuse of PPE in times of shortage.
- Reuse of disposable supplies after appropriate cleaning/disinfection/sterilization.

Long-Term Strategies

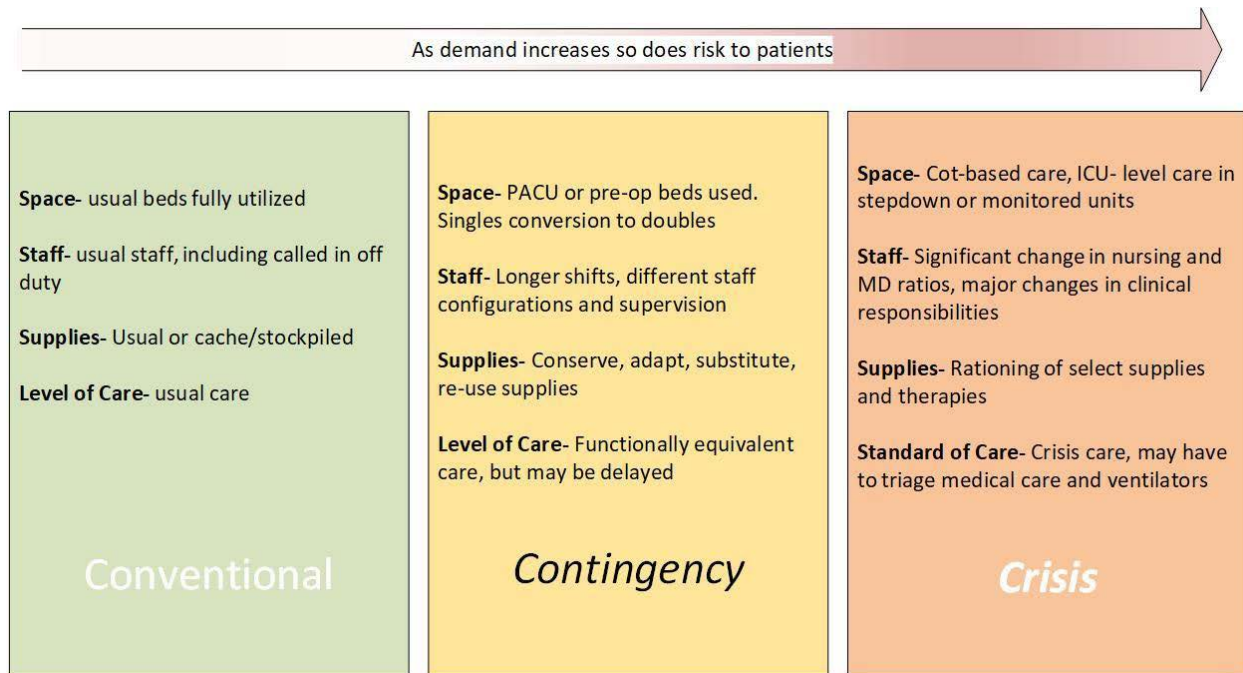
These are usually employed in an incident, which will continue to require crisis care due to pervasive region-wide demands on resources. A State declaration of emergency should occur; planning cycles will be implemented by the hospital incident commander. Many of these strategies are located in the [CDPH Patient Care Strategies for Scarce Resource Situations](#). Strategies may include:

- Staffing: in addition to usual staff sharing, Medical Reserve Corps (MRC), Federal personnel, public health, and other personnel may be used as needed.
 - Determine need for non-employee assistance in the facility (e.g. provision of non-medical responsibilities, supervision by health care facility staff mentor, etc.).
 - Determine a preference list of providers (e.g. facility staff first, followed by local hospital staff, followed by clinic staff, out-of-state licensed staff, retired staff, EMS personnel, medical reserve corps, trainees, non-health care organization staff, military personnel assigned to the response, or lay volunteers that might assist the facility during an incident).
- Facilitation of home-based care for a larger proportion of patients in cooperation with public health and homecare agencies.
- Establish mobile or temporary evaluation and treatment facilities in the community to supplement usual clinic locations (e.g. telemedicine). These locations may also be used to screen those with mild symptoms when medications (e.g. antiviral's or antibodies) are available for treatment.
- Establish guidelines and public messaging directing potential patients how to evaluate symptoms and care for themselves at home, indications for seeking medical evaluation and treatment, whether an evaluation and treatment for some conditions can safely be delayed, and locations of available care.

At this point, the IC must incorporate a structured assessment of health care facilities services and resources on a daily basis as part of Incident Action Planning. The IC should examine the administrative and clinical adaptations needed for each operational period based on the

incident demands. Administrative, rather than clinical adaptations, should be emphasized until no longer possible. Figure 1 below shows examples of strategies from least to most aggressive.

Figure 1: Examples of Changes in Healthcare Delivery ¹ (from CA CC Guidelines)



Process for Implementing Crisis Care and Triage

1. Incident commander recognizes that systematic clinical changes and/or allocation of scarce clinical resources to those most likely to benefit is required.
2. Emergency Manager or Planning Chief gathers guidelines, epidemiological information, resource information, and regional health care facility information, and schedules meetings or conference calls with Incident Commander or designees to the Crisis Triage Committee.
3. Crisis Triage Committee¹ or Clinical Care Committee is convened by the Incident Commander— membership may vary depending on incident and facility resources:
 - a. Healthcare System Administrator
 - b. Medical Director (Medical Care Director)
 - c. Nursing Administration
 - d. Risk Manager, Healthcare System Attorney (if possible)
 - e. Infectious Disease (for infectious incident)
 - f. Critical Care

¹ This may be done at a system or facility level. Please reference the [CA Crisis Care Guidelines](#).

SVMH COVID-19 CRISIS CARE PLAN

- g. Emergency Medicine
 - h. Emergency Manager
4. The Crisis Triage Committee reviews the situation, CDPH guidance, and regional/state health care facility efforts and determines:
- a. Methods to meet patient care needs (for example, use of non-invasive ventilation techniques, changes in medication administration techniques, use of oral medications and fluids instead of intravenous, etc.). These will generally be of limited value in correcting large demand/resource deficits; however, use CDPH scarce resource guidance (see CDPH Patient Care Strategies for Scarce Resource Situations).
 - b. Additional changes in staff responsibilities to allow specialized staff to re-distribute workload (for example, floor nurses provide basic ICU patient care while critical care nurses oversee these nurses and their patients) or would incorporate other health care providers, lay providers, or family members to provide assistance based on their skillset.
 - c. Mechanism for reassessment of local and regional health care facility efforts and strategies (e.g., assignment of liaison officer and establishment of regular communications loop with MHOAC and CDPH state entities).
 - d. Mechanism to summarize recommendations and changes and circulate to all staff and patients/families (concrete guidelines are important to provide clarity and reduce decision-making based upon emotional or subjective factors).
5. Committee reviews options for:
- a. Location of care (triage of patients to critical care, floor care, off-site care, home based on disease severity)
 - b. Assignment of resources (which patients will receive resources in limited supply – ventilators, anti-toxin, etc., or which will not be offered such interventions when there are competing demands).
6. Crisis Triage Committee summarizes recommendations for care for the next operational period and determines meeting and review cycles for subsequent periods (e.g.: daily meeting, twice daily conference call, etc.) assuring that regional efforts at the HCC level are integrated into facility process/timelines.
- a. Incident Commander approves recommendations and integration into the Incident Action Plan (IAP). Section Chiefs and Command Staff are briefed and the PIO assures communications to all staff.
 - b. Information is disseminated to inpatient services, outpatient services, MHOAC and HCC. Daily conference calls with HCC involving critical care, infectious disease, command staff, as indicated by circumstances

Allocation/Re-allocation of Critical Care or Limited Resources

1. Current inpatients, patients presenting to the health care facility, and their family members are given verbal and printed information by the triage nurse in the ED with reinforcement by a medical provider explaining the situation and explaining that resources may have to be restricted or re-allocated, even once provided, in order to provide care to the most patients and those that will most benefit. A contact point (phone extension) for responding to patient/family questions and concerns should also be included, as should spiritual support contact information.
2. Access controls should be implemented appropriate to the situation.
3. Assure behavioral health resources are available and appoint a palliative care unit leader as needed.
4. Triage plan for each operational period:
 - a. Emergency department/Outpatient screening of patients (and limitation of service to patients either too sick or too well to be benefited by evaluation/admission) based on current regional resources and CDPH CC guidance as well as facility resources.
 - b. Triage team – Two Crisis Triage Officer physicians not directly involved in the patient’s care and an administrative supervisor evaluate ICU/ventilator allocation and allocation of other resources. Decisions are based on evaluation of objective data in concordance with CDPH strategies and/or overall Crisis Triage score. (See ICU/Vent Triage protocol appendix b.)
 - i. The overall Crisis Triage score is determined by points assigned according to the patient’s MSOFA score (range 1 to 4 points) **plus** the presence or absence of comorbid conditions (score 0 (none), 2 (major comorbidities) or 4 (severe comorbidities)). These points are then added together to produce a total priority score, which range from 1-8. Lower scores indicate higher likelihood of benefiting from critical care, and priority will be given to those with lower scores.
 - ii. When two patients have essentially equal levels of illness/prognosis as determined by the overall Crisis Triage score, the ICU/Vent protocol “tie” guideline should be used. (See ICU/Vent Triage protocol appendix b.)
 - iii. The triage team communicates the overall Crisis Triage score and the allocation decision to the inpatient unit leader and documents decision metrics in the EHR templates in the affected patient(s) charts.
 - iv. Note that in some situations health care facility staff may participate on the triage team on rotating basis.
5. The inpatient unit leader should maintain situational awareness of the facility. This individual should have access to:
 - a. ED and other outpatients waiting for beds (both floor and critical care units)
 - b. Inpatient bed status including pending transfers into/out of critical care areas.

- c. Clinical status of patients by unit (i.e., improving; able to move to floor status or discharge or worsening: may require critical care or may not be eligible for continued level of treatment). This requires ongoing contact between the inpatient unit leader and the clinical units to assure that information is up to date and accurate so that good decisions can be made. The leader will work closely with the Triage Officer or Triage Team to determine the best use of beds available.
6. The process and rationale for resource assignment should be provided to the attending physician and family:
 - a. Grounds for the decision.
 - b. An appeals process that allows a period of time (appropriate to the intervention being allocated – for ventilators 15 minutes) for the attending physician to request re-consideration of the decision if there is new objective information available that that patient’s prognosis is more favorable than determined by the triage officer or triage team. (see ICU/Vent Triage protocol appendix b.)
 - c. The ICU/Ventilator triage protocol decisions should be reviewed by the crisis triage committee and additional oversight CTO physicians at set periods (e.g. every 24-48 hours) and as needed to assure the best evidence available is being used and that the decisions and the system are operating justly.
 - d. The HICS Operations Section Chief and the attending physician will agree on the level of care required for the patient after the allocation decision is made – floor, intermediate, or ICU.
 - i. In most cases all means of available support should continue to be offered aside from the resource triaged, and should the patient improve or more resources become available they may re-qualify for a resource.
 7. Assure adequate symptom relief and comfort for all patients as possible based on the available resources.

Demobilization/Return to Conventional Care

Similar to having pre-identified trigger points to implement principles of CC, it is important to continually assess and re-assess the situation as more resources arrive. We as a facility want to return to contingency and conventional care as quickly as possible. The Hospital Incident Commander will be in communication with external partners (HCC, state, federal partners) to ensure accurate information gathering about the situation and will relay pertinent information to the HICS team, Crisis Triage Committee, Triage Officers, and/or Triage Team.

Education, Training, and Exercise

Health care staff will be educated on this plan by the following tiers:

- **Knowledge:** awareness of the plan;

SVMH COVID-19 CRISIS CARE PLAN

- **Competency:** the ability to do something successfully or efficiently in relationship to the plan; and
- **Proficiency:** a high degree of competence or expertise.

A list of which staff positions are trained to which level can be found in Appendix A.

Concepts of Crisis Care will be incorporated into annual exercises as appropriate to include involvement from administration and the medical staff.

Review, Authorities

Approval date:	01/05/2021
Modification date(s):	
Authorizing signature: CMO	On File

Appendix B: ICU/Ventilator Triage Protocol

This is a stand-alone document intended to direct ICU/ventilator allocation throughout the hospital during the COVID-19 pandemic. Recommendations based on the [2020 CDPH Crisis Care Guidelines](#) takes into account factors specific to COVID-19, and also provides additional framework for operationalizing crisis surge plans. This protocol does not discriminate based on race, color, national origin, disability, sex, or exercise of conscience and religion. It meets the Crisis Care (CC) ethical goals of fairness, duty to care, transparency, consistency, proportionality, and accountability. The use of Crisis Triage Officers (CTOs) or CTO Teams should be used during contingency and crisis care. CTO's are well versed in this and related protocols.

Contingency Care: Every effort should be made to avoid Crisis Care. CTO's should make frequent assessments of ICU/ventilator supply relative to anticipated patient demand. Contingency strategies should be maximized based on evidence-based best practices as they emerge, and load leveling among hospitals and healthcare systems through coordinated patient and resource allocation.

Crisis Care: If ICU/ventilator capacity still becomes insufficient after contingency care, the CTO should communicate the situation with Incident Command at the facility. The liaison officer or planning section chief will notify MHOAC system, and state level. ICU/ventilator care needs to be increasingly focused on those that are more likely to benefit from it, to meet the goal of "the greatest good for the greatest number." Additionally, non-ICU care, including comfort care, needs to be made available to those that are critically ill but unlikely to benefit from ICU care. This pivot will be facilitated by end of life discussions with family and all assisted by the CTO.

For patients considered for ICU/ventilator care when Crisis Care is established:

[Modified Sequential Organ Failure Assessment \(MSOFA\)](#) score-based prioritization (table 1); all assisted by the CTO. COVID-19 metrics need to be clear that major comorbidities include prediction of mortality from COVID-19.

Step 1) Engage in a shared decision-making discussion with patient/surrogate, early on and throughout the patient's care, that focuses on obtaining either informed consent or informed assent (in which the family is explicitly offered the choice to defer to clinicians' judgment) for withholding or withdrawing life-sustaining therapy. Provide information about the risks and benefits of potentially prolonged ICU/ventilator care with its attendant risks of discomfort and uncertain prospects for recovery, and convey specific recommendations about the medically proposed course. Attempt to obtain any POLST or other advance directive documentation, through the EMR or by contacting the sending care center, if guidance from the patient/surrogate is not available. If indicated by documentation or if the patient/surrogate declines ICU care, arrange for non-ICU care.

Non-ICU Care Criteria: Patients with the following conditions should be offered non-ICU care:

- a) POLST or advance directive indicating intubation or ICU type care unacceptable.
- b) Severe and irreversible acute or chronic neurologic condition.

SVMH COVID-19 CRISIS CARE PLAN

- c) Severe acute trauma with a REVISED TRAUMA SCORE <2.
- d) Severe burns with <50% anticipated survival.
- e) Cardiac arrest without easily identifiable AND reversible cause.
- f) Incurable, advanced metastatic cancer, causing organ dysfunction.
- g) MSOFA greater than 11, as initial cutoff plus moderate/severe comorbidities
- h) Crisis Care Score >8 as determined in Step 3

MSOFA does not apply to patients less than age 14. For pediatrics, clinicians should use the non-ICU care criteria, and best clinical judgment. The predictive ability of MSOFA has not been studied in COVID-19 and we anticipate revising this guideline as data emerges which could enhance the prediction of survivability with COVID-19. In addition, conditions may be added, removed, or adjusted on the basis of new evidence or

Provide critical care stabilization if ICU/ventilator care is in the patient's best interest after shared decision making, non-ICU criteria are not present, and resources are available. Inform the patient/surrogate of the potential need to evaluate the appropriateness of ICU/ventilator care support going forward, including the need for surrogates to be readily available for discussion and decision making.

Step 2) Patients in whom ICU/ventilator care is not proving beneficial (MSOFA > 11 plus major/severe comorbidities or MSOFA 8 to 11 plus moderate/severe comorbidities AND increasing MSOFA trend should be transitioned to non-ICU care. The goal is to "stay ahead by at least one ventilator," such that there is a readily available ICU/ventilator whenever possible.

Step 3) If additional ICU/ventilator needs are still identified or projected, additional ICU/ventilator withdrawal will be needed to achieve the goal of having some ICU/ventilators available. This should be made based on MSOFA score calculations for all patients on ICU/ventilator care for at least 48 hours and then at least every 24 hours. First, patients with MSOFA > 11 plus moderate/severe comorbidities or MSOFA 8 to 11 plus moderate/severe comorbidities AND increasing trend need to be considered for transition to non-ICU care. If additional ICU/ventilator care is needed, the patients with the highest overall Crisis Care Score (CC Score) or those with worsening MSOFA score trends should be considered for transition to non-ICU care to meet the ongoing ICU/ventilator demand. This Crisis Care Score for ongoing ICU/ventilator care needed to create enough capacity for new ICU/ventilator demand should be communicated to Incident Command at the facility, MHOAC regional system, and state level, to allow for ongoing resource sharing and load leveling primarily via patient admission adjustments as a means to make this Crisis Care Score as even as possible across the region or state.

Some patients should be considered for continued ICU/ventilator care, unless their clinical condition or shared decision-making process indicates otherwise. For example:

SVMH COVID-19 CRISIS CARE PLAN

Pregnancy: Patients with pregnancy may represent two lives, and thus giving them priority is aligned with “do the greatest good for the greatest number.”

As currently written, this protocol tries to keep ICU/ventilator care available for new patients that may benefit from it, by withdrawing ICU/ventilator care from those not benefiting from it. If the crisis deepens and we learn that patients need more time on ICU/ventilator care to survive, this “stay ahead by at least one vent” strategy may need to be abandoned in order to achieve the primary goal of “do the greatest good for the greatest number.”

Step 4) We can expect that the degree of crisis will wax and wane. By making daily determinations of ICU/ventilator demand compared with supply, the CTO should adjust the Crisis Care Score as needed, and should communicate it at least daily to critical care providers and facility, system, and state Incident Command for ongoing load leveling. The CTO will also address appeals from either families or critical care providers in collaboration with the Chief Medical Officer as needed. As the crisis wanes, the Crisis Care Score will rise and eventually will not be needed to maintain adequate ICU/ventilator capacity.

Table 1: Modified Sequential Organ Failure Assessment (MSOFA)

Variable	Score 0	Score 1	Score 2	Score 3	Score 4	Row Score
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 Spo ₂ >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			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 to 12	6 to 9	<6	
Creatinine level, 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	
MSOFA score			Total score from all rows =			

SpO₂/FIO₂ ratio: SpO₂ = Percent saturation of hemoglobin with oxygen as measured by a pulse oximeter and expressed as % (e.g., 95%); FIO₂ = Fraction of inspired oxygen; e.g., ambient air is 0.21 Example: if SpO₂=95% and FIO₂=0.21, the SpO₂/FIO₂ ratio is calculated as 95/0.21=452 MABP = mean arterial blood pressure in mm Hg (diastolic + 1/3(systolic - diastolic) Dop = dopamine in mcg/kg/min /epi = epinephrine in mcg/kg/min/norepi = norepinephrine in mcg/kg/min.

Table 2. Examples of Major Comorbidities and Severely Life Limiting Comorbidities*

<p align="center">Examples of Major Comorbidities (Score of 2 if any one of the following) (Associated with significantly decreased long-term survival)</p>	<p align="center">Examples of Severely Life Limiting Comorbidities (Score of 4 if any one of the following) (Commonly associated with survival < 1year)</p>
<ul style="list-style-type: none"> • Moderate Alzheimer's disease or related dementia • Cancer being treated with only palliative interventions (including palliative chemotherapy or radiation) • New York Heart Association Class 111 heart failure • Moderately severe chronic lung disease (e.g., COPD, IPF) • End-stage renal disease < 75 years old • Severe multi-vessel CAD • Cirrhosis with history of decompensation 	<ul style="list-style-type: none"> • Severe Alzheimer's disease or related dementia • Advanced metastatic cancer causing organ dysfunction or poor functional status. • New York Heart Association Class IV heart failure plus evidence of frailty • Severe chronic lung disease plus evidence of frailty • Cirrhosis with MELD score : >20, ineligible for transplant • End-stage renal disease > 75 years old

*This Table only provides examples. There are likely other reasonable approaches to designating 0, 2, or 4 points according to the "save the most life-years" principle.

This section provides instructions on how to calculate overall scores.

Points are assigned according to the patient's MSOFA score (range from 1 to 4 points from Table 1.) plus the presence or absence of comorbid conditions (2 points for major life-limiting comorbidities, 4 points for life-limiting comorbidities likely to cause death within a year (Table 2). These points are then added together to produce a total priority score, which ranges from 1 to 8. **(See summary table below)**. Lower scores indicate higher likelihood of benefiting from critical care, and priority will be given to those with lower score.

Overall Crisis Care (CC) Triage Score

Specifications	Purpose	Component Score (Table 1 &2)	Point System					Patient Score
			0	1	2	3	4	
MSOFA Score	Likelihood of surviving days/weeks if given critical care resources		X	1-4	5-8	9-11	>12	
Comorbid Index Score	Validated measure 1 year survival							

This section provides instructions on how to create broader, color-coded priority groups.

Once a patient's priority score is calculated using the multi-principle scoring system described in Table 1 and 2, each patient should be assigned to a color-coded triage priority group (**Table 3**), using the **Overall Crisis Care Score (CC Score)** which should be noted clearly on their chart/EHR.

This color-coded assignment of priority groups is designed to allow triage officers to create operationally clear priority groups to receive critical care resources, according to their score on the multi-principle allocation framework. For example, individuals in the red group have the best chance to benefit from critical care interventions and should therefore receive priority over all other groups in the face of scarcity. The orange group has intermediate priority and should receive critical care resources if there are available resources after all patients in the red group have been allocated critical care resources. The yellow group has lowest priority and should receive critical care resources if there are available resources after all patients in the red and orange groups have been allocated critical care resources.

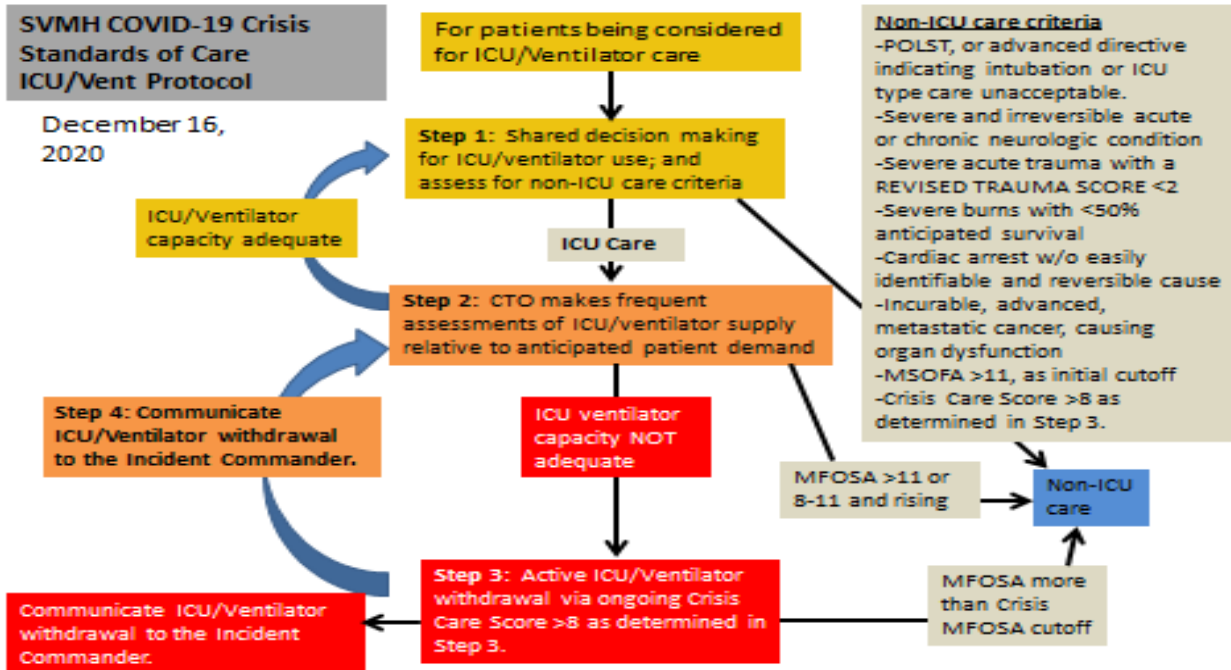
Points are assigned according to the patient's MSOFA score (range 1 to 4 points) **plus** the presence or absence of comorbid conditions (score 0 (none), 2 (major comorbidities) or 4 (severe comorbidities)). These points are then added together to produce a total priority score, which range from 1-8. Lower scores indicate higher likelihood of benefiting from critical care, and priority will be given to those with lower scores. (**Table 3**)

Table 3. Assigning Patients to Color-coded Priority Groups

Use Raw Score from Multi-principle Scoring System to Assign Priority Category	
Level of Priority and Code Color	Priority score from Multi-principle Scoring System
RED Highest priority	Priority score 1-3
ORANGE Intermediate priority (reassess as needed)	Priority score 4-5
YELLOW Lowest priority (reassess as needed)	Priority score 6-8

Resolving appeals and "ties" in priority scores/categories between patients. In the event that there are 'ties' in priority scores/categories between patients and not enough critical care resources for all patients with the lowest scores, life-cycle considerations should be used as the first tiebreaker. The CTO and Chief Medical Officer may resolve a tie determining the best triage decision to support “do the greatest good for the greatest number.”

Table 4. Algorithm Flow Chart



References:

California Department of Public Health. June 2020. California SARS-CoV-2 Pandemic Crisis Care Guidelines. Retrieved from CDPH. <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/COVID-19/California%20SARS-CoV-2%20Crisis%20Care%20Guidelines%20-June%2008%202020.pdf>

C. K. Grissom, S. M. Brown, K. G. Kuttler et al., “A modified sequential organ failure assessment score for critical care triage,” *Disaster Medicine and Public Health Preparedness*, vol. 4, no. 4, pp. 277–284, 2010.

Hanfling, D., Hick, J., & Crantrill, S. (2012, October 6). Understanding the role for crisis standards of care. Retrieved from *Annals of Emergency Medicine*: <http://www.annemergmed.com/article/S0196-0644%2812%2900473-8>