California SARS-CoV-2 Pandemic Crisis Care Guidelines

CONCEPT OF OPERATIONS
HEALTH CARE FACILITY SURGE OPERATIONS AND CRISIS CARE

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DISCLAIMER

The information contained in this document is meant to provide useful information to health care facilities and systems, but does not in any way alter or diminish health care facilities' and systems' responsibilities during catastrophic public health events. Health care facilities or systems implementing these strategies in crisis situations should assure communication and coordination with their Health Care Coalition (HCC) partners, their Medical and Health Operational Area Coordinator (MHOAC), Regional Disaster Medical and Health Specialist (RDMHS), the California Department of Public Health (CDPH), Emergency Medical System Authority (EMSA), and public safety partners to assure the invocation of appropriate legal and regulatory protections as appropriate in accord with state and federal laws. Recommendations within this document may be superseded by incident specific recommendations by CDPH. Web links and resources listed are provided as examples and their listing does not imply endorsement by CDPH.

Introduction

This document is a framework designed to help health care facilities plan for the COVID-19 pandemic, which may cause overwhelming medical surge. This guidance assumes incident management and incident command practices are implemented and key personnel are familiar with healthcare emergency management planning and processes that underlie scarce resource decision-making.

During a catastrophic public health event that results in medical surge, each health care facility or health care system should use this guidance as a framework to determine the most appropriate steps and actions for their entity based on their environment, hazards, and resources. Since pre-planned actions are always preferred to impromptu decisions, pre-event emergency management planning and training is recommended. This document addresses common categories of health care delivery, triage, staff and space that could arise when available resources are limited or insufficient to meet the medical needs of patients. In California, local or regional HCCs, hospitals and health care systems may determine additional issues and strategies in addition to those outlined in this document.

This document provides an overview of surge capacity and crisis care operational considerations for health care facilities with an emphasis on hospitals for the State of California. In addition to this framework, hospitals and health care systems are encouraged to review federal guidance which can be found on the National Academies of Science webpage.

This document is meant to provide information to support regional or county health entities, including health departments as well as individual health care facility operations, as they develop and implement their operational plans. It is the responsibility of the regional entity or the facility to work with their management team and medical staff to ensure operational plans are in place. This document does not replace the judgment of the regional health care facilities' operational management, medical directors, their legal advisors or clinical staff and consideration of other relevant variables and options during an event. States and national medical

organizations have shared best practices and incorporated relevant medical literature in developing Crisis Care guidelines. California is using this collaborative work as a cornerstone for these guidelines.

California is committed to achieving and sustaining a California for All and to its nation-leading laws and policies, including prohibiting discrimination on such protected bases as, age, disability, race, sex, gender identity and sexual orientation and immigration status.

This document is consistent with the "Guidance Relating to Non-Discrimination in Medical Treatment for Novel Coronavirus 2019 (COVID-19)" issued on March 30, 2020.

Care Continuum

Most health care facilities are familiar with the concepts of surge capacity, the ability to manage a sudden influx of patients[1] and surge capability, the ability to manage patients requiring very specialized medical care.[2] During conventional care, customary routine services are provided through standard operating procedures. During contingency care, care provided is functionally equivalent to routine care but equipment, medications, and even staff may be used for a different purpose or in a different manner than typical daily use (e.g. substituting one antibiotic for another that covers the same classification). The demands of most incidents can be met with conventional and contingency care. Crisis care falls at the far end of the spectrum when resources are scarce and the focus changes from delivering individual patient care to delivering the best care for the patient population.

The goal during a medical surge event is to maximize surge capacity strategies that mitigate the crisis while minimizing the risks associated with deviations from conventional care. Choosing the strategies that are most appropriate to the situation and pose the least risk to the patient and provider first, and then proceeding to riskier strategies as demand increases and options decrease, is the preferred path.

Surge capacity is described across a spectrum of three categories (Figure 1):

- **Conventional:** Usual resources and level of care provided.[3] For example, during a surge in patients, maximizing bed occupancy and calling in additional staff to assist.
- **Contingency:** Provision of functionally equivalent care that may incur a small risk to patients. Care provided is adapted from usual practices. For example, boarding critical care patients in post-anesthesia care areas using less traditional, but appropriate resources.[4]
- **Crisis:** Disaster strategies used when demand forces choices that pose a significant risk to patients but is the best that can be offered under the circumstances. For example, cot-based care, severe staffing restrictions, or restrictions on use of certain medications or other resources.[5]

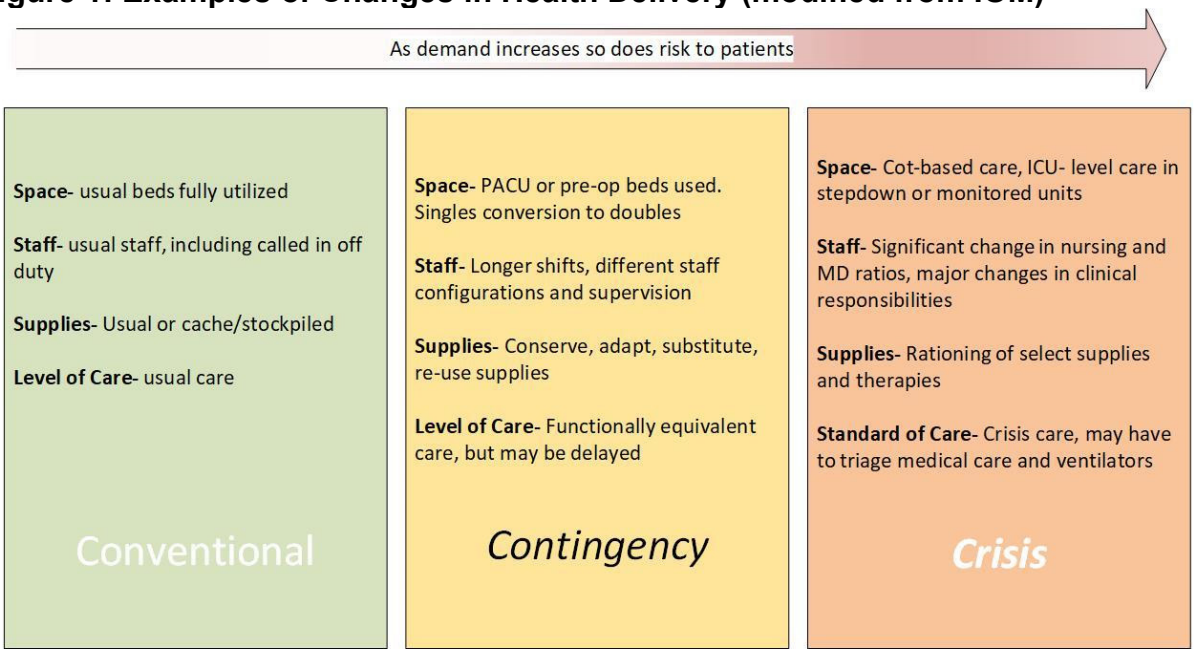
[1,2] ASPR. *2017-2022 Health Care Preparedness and Response Capabilities.* pg. 44

[3] Hick, J. L. Hanfling, D. & Cantrill, S. V. (2012). Allocating Scarce Resources in Disasters: Emergency Department Principles. *Annals of Emergency Medicine, 59*(3), p 178.

[4] Hick, J. L. Hanfling, D. & Cantrill, S. V. (2012). Allocating Scarce Resources in Disasters: Emergency Department Principles. *Annals of Emergency Medicine, 59*(3), p 178.

[5] Hick, J. L. Hanfling, D. & Cantrill, S. V. (2012). Allocating Scarce Resources in Disasters: Emergency Department Principles. *Annals of Emergency Medicine, 59*(3), p 178.

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



Key Points about Crisis Care

- Crisis care is not a separate triage plan. These strategies are extensions of surge-capacity plans.
- Crisis care may occur during long-term events such as pandemics when resource constraints are likely to persist for long periods of time, or during short-term, no-notice events where help will arrive, but too late to solve an acute resource shortfall.
- Health care facilities will not have an option to defer caring for patients in a crisis. Demand, guided by ethics, will drive the choices that have to be made.
- Healthcare decisions, including allocation of scarce resources, cannot be based on age, race, disability (including weight-related disabilities and chronic medical conditions), gender, sexual orientation, gender identity, ethnicity (including national origin and language spoken), ability to pay, weight/size, socioeconomic status, insurance status, perceived self-worth, perceived quality of life, immigration status, incarceration status, homelessness, or past or future use of resources.
- If strategies are not planned for ahead of time, they might not be considered and/or will be difficult to implement.
- Strategies should be proportional to the resources available. As more resources arrive, you should move back toward strategies that are less demand driven (and therefore, back toward contingency and eventually conventional status)

The principles of crisis care must be integrated into Emergency Operations Plans (EOPs) at all levels of health care.

Roles and Responsibilities

The primary focus of this guidance is on the operational strategies for health care facilities during crisis. Health care facilities should be supported by regional HCCs, their MHOAC, RDMHS, CDPH, EMSA, and public safety partners, local EMSA, and state and local government agencies. HCCs includes partnerships between local public health, emergency medical services (EMS), health care facilities, and emergency management that provide planning and response coordination.

Planning and Implementation

Indicators and Triggers

An indicator is a "measurement or predictor of change in demand for health care services or availability of resources."[6] An example of an indicator is a report of several confirmed cases of COVID-19 in the community by the local health department. A trigger is a "decision point about adaptations to health care service delivery" that requires specific action.[7] An indicator may identify the need to transition to contingency or crisis care (but requires analysis to determine appropriate actions), while a trigger event dictates action is needed to adapt health care delivery and resources. It is important for organizations to identify indicators and triggers prior to an event due to the "stress, complexity, and uncertainty inherent in a crisis situation."[8]

There are two types of triggers – scripted and non-scripted. Build scripted triggers into standard operating procedures, which are automatic 'if/then' decisions. Whenever possible, scripted triggers should be developed for frontline personnel (point of entry health care facility staff, reception, etc.) so they have actions they can take immediately to prevent delay. An example may be isolation protocols for individuals showing certain signs or symptoms of a particular disease.

Non-scripted triggers require additional analysis involving supervisory staff. These are often part of an incident action planning cycle. The less specific the information available, the more difficult it is to apply a scripted trigger and the more likely an experienced supervisor or subject matter expert should be involved to process the information and decide on necessary actions. Frontline personnel should have a low threshold for passing indicator information along to supervisors for situational awareness and potential decision-making.

In addition to identifying response specific indicators and triggers, hospitals should determine the trigger or threshold to identify when they are in crisis care whenever possible. For example, if a hospital is providing cot-based care or any intensive care unit (ICU) care is provided outside usual intermediate and pre/post op areas, these are indicators that operations are now into crisis care and should trigger a response action.

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6 Dan Hanfling, John Hick, and Clare Stroud, Editors; Committee on Crisis Standards of Care: A Toolkit for indicators and Triggers; Board on Health Sciences Policy; Institute of Medicine, "Crisis Standards of Care: A Toolkit for Indicators and Triggers" (the National Academies Press, 2013) 2

7 Ibid

8 Ibid

These triggers will vary by facility depending on size and resources. Facility level indicators and triggers should be communicated with health care coalition partners, MHOACs and RDMHSs.

Detailed information on indicators and triggers (including templates for health care facilities) is available in the 2013 IOM/NAM Crisis Standards of Care: A Toolkit for Indicators and Triggers.

How to identify and incorporate Indicators and Triggers in your EOP

1. Do not focus on indicators and triggers in isolation.
2. Determine what response strategies or options you may use during a disaster.
3. Determine what indicators might be available during a disaster that would trigger hospital action.
4. Identify trigger points for your health care facility including, but not limited to:
    a. Implementing triage
    b. Temporarily closing your facility to new admissions or transfers
    c. Canceling elective procedures
    d. Stockpiling or ordering more supplies
    e. Implementing staffing changes
5. Determine what staff actions should happen based on the indicator. These should be specific and tell staff exactly *when* they should take certain actions. This is critical to the success of the response.

Having specific actions staff should take at a clearly defined trigger is critical to the success of the response. Delays in decision-making occur in unfamiliar situations and with unclear authority.

Supply Management

Healthcare facilities are expected to anticipate supply needs and make every effort to procure in advance supplies through usual supply chains and standing vendor contracts. In addition, when resources are scarce, facilities must continue aggressive measures to acquire needed equipment such as ventilators. Such measures can include coordination with healthcare coalition partners and local reserves that may provide a source of supplies otherwise in shortage

When usual supply chain sources are exhausted, supply resource requests can be made through the local MHOAC, who in turn will attempt to fill these requests through regional and state level stores of supplies and various procurement capability.

During declared disasters CDPH and the state EMS authorities track health care resources including hospital med/surge and ICU surge capacity and ventilators, and will help coordinate the allocation and distribution or re-distribution of those scarce resources when available.

Systems are also encouraged in times of scarce resources to explore alternatives to

single-use invasive ventilation by gathering data on the utility and safety of non-invasive ventilation and to investigate the efficacy and safety of splitting ventilators.

Core Strategies

Six core strategies can be employed in anticipation of a shortage of space, supplies, and/or staff. These strategies can help avoid or mitigate a crisis of care situation. When writing an EOP consider how your facility will utilize these strategies:

- **Prepare:** pre-event actions taken to minimize resource scarcity (e.g. stockpiling of personal protective equipment (PPE), medications or supplies, planning, training).
- **Substitute:** use an equivalent device, drug, or personnel for one that would usually be available (e.g. exchanging morphine for fentanyl).
- **Adapt:** use a device, drug, or personnel that are not equivalent but that will provide sufficient care (e.g. anesthesia machine for mechanical ventilation; licensed practical nurse (LPN) with registered nurse (RN) supervision instead of multiple RNs).
- **Conserve:** use less of a resource by lowering dosage or changing utilization practices (e.g. minimizing use of oxygen driven nebulizers to conserve oxygen).
- **Re-use:** re-use (after appropriate disinfection/sterilization) items that would normally be single-use items.
- **Re-allocate:** restrict or prioritize use of resources to those patients who are likely to benefit and survive in the immediate short-term or to those with greater need only in times of actual shortage.

Acute Care Hospitals

1. Review available resources and determine potential strategies to address Crisis Care Guidelines across the surge capacity continuum from conventional to crisis care.
2. Review your hospital's capabilities in managing surge, critical care, infectious disease, isolation, just-in-time training, and pediatrics to meet their objectives.
    a. Involve in this review: nursing, administration, emergency management, emergency services, ancillary and support services—lab, radiology, respiratory therapy, pharmacy, facilities etc.—and physician personnel.
    b. Include critical care if your institution provides those specialties.
3. Determine what number of pandemic patients should be planned for based on suspected hazards. Consider your role in the community and the presence or absence of other health care facilities in the area.
4. Incorporate indicators and triggers (surge capacity information throughout the care continuum) into your EOP.
5. This should also include the notifications to supervisors and partner agencies that need to occur when these triggers are activated. Delegating authority to activate the disaster plan to emergency department (ED) staff or nursing supervisors/charge nurses should be done when possible to facilitate rapid action. The adoption of clear policies helps facilitate decisions as well as provides accountability. Education and training of staff should be conducted to assure successful implementation of the plan.
    a. Keep in mind the training practice of educating to an awareness,

knowledge, and proficiency level. Not all staff members need to be proficient in the plan, but those frontline decision-makers (charge nurses, unit supervisors etc.) should know how to incorporate surge capacity into their respective units prior to an incident. See below for more detail on Health Care Worker Engagement.

   b. Job aids—such as brief task cards or job action sheets—should be widely used to help frontline personnel with initial decisions and actions.
   c. Education prior to crisis events, as well as appropriate reminders integrated into job aids and training materials, should increase awareness of antidiscrimination responsibilities and the role that explicit and implicit bias can play in reinforcing health disparities that affect at-risk populations.

6. During an event response, the facility should review and modify their procedures as needed as part of the incident action planning process. Plans should be adaptable and not “lock in” disaster response protocols for the duration of an incident but allow flexibility and transition toward conventional care as more resources arrive or demand falls, or both.
7. Exercising the plan is an important part of training and testing your plan. It is important when testing any EOP that you really push the exercise into the crisis care mode.
8. Review and updates to the plan should occur when new information is available.

Non-Acute Care Facilities and Services

The role of non-acute care facilities, such as ambulatory care centers, clinics, hospices, home care, skilled nursing facilities, alternative care facilities, etc. is different than that of acute care hospitals during a pandemic. These facilities can provide critical capacity, both outpatient and post-acute care, and may be needed to broaden their scope of care during such incidents.

1. Examine your resources and determine potential contingencies such as:
   a. Extended hours
   b. Conversion of space and staff from specialty care to primary care duties
   c. Changes to charting and administration to enhance work flow (template charts and prescriptions for the event)
   d. Changes to scheduling (e.g. cancel or re-schedule elective procedures and appointments)
   e. Enhanced use of tele-medicine, telephone prescribing, and e-visits to manage workload
   f. Adjust clinic flow to avoid exposing well persons to ill persons
   g. Communicate and implement guidance on scarce resources (e.g. guidelines for prescribing anti-viral medications or administering vaccine)
   h. Increase your normal acuity of patients to support acute care hospitals
   i. Consider the utilization of volunteers to provide check-in and other services
2. The applicable activities to your agency or facility should be incorporated into your EOP.

3. Education and training of staff should be conducted to assure successful implementation of the plan. See below for more detail on Health Care Staff Engagement.
4. Exercising the plan is an important part of training and testing your plan. It is important when testing any EOP that you really push the exercise into the crisis care mode.
5. Coordination with the partners within your health care coalition to promote consistency and coordination of care is necessary.
6. If staff at Non-Acute Care Facilities and Services are making preliminary decisions about when to potentially transfer a patient to an Acute Care facility, such staff also needs to undergo training and education in nondiscrimination principles.

Health Care Staff Engagement

Given the high risk of moral distress in pandemic situations, it is important for staff to understand the goal of crisis care, the ethical principles and legal duties underlying triage decisions, and the specific plans of the institution. However, not all staff need to know every plan word for word. Staff should be divided into tiers for education—knowledge, competency, and proficiency.

- **Knowledge:** awareness of the plan; A floor nurse should understand how the surge plans affect their unit, including use of cots and changes in staffing, but does not need to know details of the plan (e.g. how to activate the plan).
- **Competency:** the ability to do something successfully or efficiently in relationship to the plan; A nursing supervisor should understand when to activate the plans, and who to notify. Frontline clinical staff should know which criteria may be ethically and lawfully considered when making triage decisions.
- **Proficiency:** a high degree of competence or expertise; Staff who are fulfilling incident command roles should understand the facility operations and how to interface with your HCC, where to get help or expertise, and be prepared to adopt proactive crisis care strategies with input from subject matter experts. In general, all health care facilities should have three-deep personnel for each hospital incident command system (HICS) position.

Exercises

Health care facilities should elevate their exercises into a true crisis mode. Often, we are good at testing our plans at a contingency level, but have trouble testing them on a crisis level. At a minimum, health care facilities should provide tabletop and other exercise opportunities—like workshops—to walk through the processes outlined in the EOP for crisis standards of care. Exercise opportunities should include hypotheticals for avoiding discrimination against people with disabilities, older adults, higher weight individuals, and other populations identified in the comment under Key Points.

For example, having clinical staff walk through how they would increase their surge capacity in the ICU with space, staff, and supplies will allow them to become more comfortable with their roles and responsibilities relative to crisis care and will help drive modifications of existing plans. This will also help clinical staff and administrators recognize triggers and have them become second nature to them, thus preventing

hesitation during a real event.

Healthcare workers should get training on:

- Avoiding implicit bias
- Respecting disability rights
- Diminishing the impact of social inequalities on health outcomes

Exercises should also test how your team would interface with your health system partners to emphasize that under no circumstances should a health care facility be providing crisis care in a silo without reaching out for assistance from partners.

Integration with Local or Regional Health System Partners

It is critical that health care facilities ***do not*** work on surge and crisis care plans in isolation, but in concert with their local and regional partners, public health, the MHOAC, and with their parent health systems, as applicable.

Consistency of plans and knowing what other health care facilities in the region are planning is critical to success. Surge strategies and standard procedures do not have to be identical, but if they are similar, it will help greatly in education, training, and mutual aid response. Health care coalitions help coordinate not only planning, but also response activities among partner health care facilities, public health, EMS, and emergency management. During a response, public health and the MHOAC provide situational awareness through information sharing, manage and coordinate resource requests, and facilitate or engage in response coordination role for the delivery of health care services. They may also convene workgroups during planning or a response to help develop regional tactics (e.g. to support alternate care sites or processes during a response or develop common policies such use and conservation of N95 masks). Public Health and the MHOACs will also engage with neighboring MHOACs, RDMHCs, and state agencies to coordinate information and strategies. This coordination assists in maintaining a common operating picture.

The key is to only implement crisis strategies when assistance from regional and state partners is inadequate (either too little or too late) and no "bridging" therapies or patient transfers can address the need.

Assuring regional coordination and leveraging available resources prevents inappropriate transition to crisis standards of care within one hospital or hospital system. Coordination with the regional partners *must* be achieved as soon as possible when a crisis develops so patient care can return to conventional operations as soon as possible. The sooner a crisis is recognized (indicators) and pre-planned resources and coordinating mechanisms are activated (triggers), the shorter the crisis period will be.

Having a good surge capacity plan contributes to the goal of emergency planning to *avoid* crisis care situations.

Public Engagement and Transparency

Health systems should be transparent and engage with the public. Ideally, pandemic planning takes place well in advance with strong public input. In the middle of a crisis, the most robust forms of public input might not be possible, but the values of transparency and public engagement still impact at least three concrete requirements. Health systems must: use public informed documents or guidance to shape the policies they develop; provide open and honest channels of communication with the public during the crisis; and seek meaningful public engagement to the extent possible, including after-the-face review and revision of pandemic policies.

Response

Given the visitor limitations imposed for infection control reasons during COVID-19, reasonable modifications should be made to permit a disabled or older patient to bring a family member, personal care attendant, communicator, or other helper to the hospital with them. Further, hospitals should ensure effective communication for people with disabilities including people who are deaf, people with non-verbal language, people with intellectual and developmental disabilities (I/DD), and people with Alzheimer's or another form of dementia. Hospitals should ensure that they have an appointed Disability Accommodations Specialist or ombudsperson who has the responsibility and authority to ensure that older adults and people with disabilities receive needed accommodations needed for effective COVID treatment.

All emergencies are addressed at the local level. If the emergency exceeds capacity at the local level, response entities will go to the state and when state capacity and resources are reached the federal government will become involved. Federal resources and assistance will all be coordinated through the state. Tribal Nations, as sovereign entities, may request disaster assistance directly from the federal government.

Triage

Triage generally refers to prioritization for care or resources. There are three basic types of triage:

- **Primary triage:** performed at first assessment and prior to any interventions (e.g. triage upon entry to the ED by EMS at the scene)
- **Secondary triage:** performed after additional assessments and initial interventions (e.g. triage performed by surgery staff after an initial CT scan)
- **Tertiary triage:** performed after or during the provision of definitive diagnostics and medical care (e.g. triage performed by critical care staff after intubation and mechanical ventilation with assessment of physiologic variables)

Primary, secondary, and tertiary triage can be categorized as either **reactive triage** or

proactive triage. An individualized clinical assessment of the patient's immediate/shorter-term prognosis (i.e. recovery from COVID-19) should form the basis of the triage decision.

Reactive Triage

Reactive triage occurs in the early phases of the incident when the responders know less information regarding the incident. Physicians and nurses make triage decisions based on their best judgment, through individualized determinations using objective medical evidence. Generally, patients with altered mental status, signs of shock, penetrating torso injury, uncontrolled bleeding, and respiratory distress are highest priority. It is only in primary and secondary mass casualty circumstances when patients may need to be categorize as expectant or "likely to die" and; therefore, to receive palliative care as their only intervention. *Primary and secondary triage are often reactive triage.*

Factors to consider:

- Time required to perform treatment
- More time, skill, and resources may be required to care for people with disabilities, unless doing so poses a direct threat or undue burden. Reasonable accommodations may include interpreter services or other modifications or additional services needed due to a disability.
- Clinical skill requirements (i.e. how much physician/nursing expertise is required)
- Treatment requirements (what are the resource requirements)
- Immediate-term prognosis of the injury

In general, the more victims there are, the more the triage process should prioritize the moderately injured that require interventions that will save their life and can be rapidly performed (e.g. chest tube, airway management, and tourniquet). Finally, if multiple patients present with similar immediate-term prognosis to a hospital that has minimal resources, a first-come, first-served or lottery strategy may have to be implemented.

It is critical to re-evaluate patients as more resources arrive.

Proactive Triage

Proactive triage may be required later in an incident that continues to overwhelm the health care system after initial stabilization and delivery of available resources. The situation and resources are now known. Decisions revolve around whether resources can continue to be expended given the patient prognosis and availability of resources. *Tertiary triage is a form of proactive triage.* Proactive triage of resources should only occur when the following conditions are met and unless specified otherwise, the patient should continue to receive all other means of support. The patient should always have equitable access to medications to control pain and suffering to the degree possible given the circumstances:

Proactive triage conditions to meet:

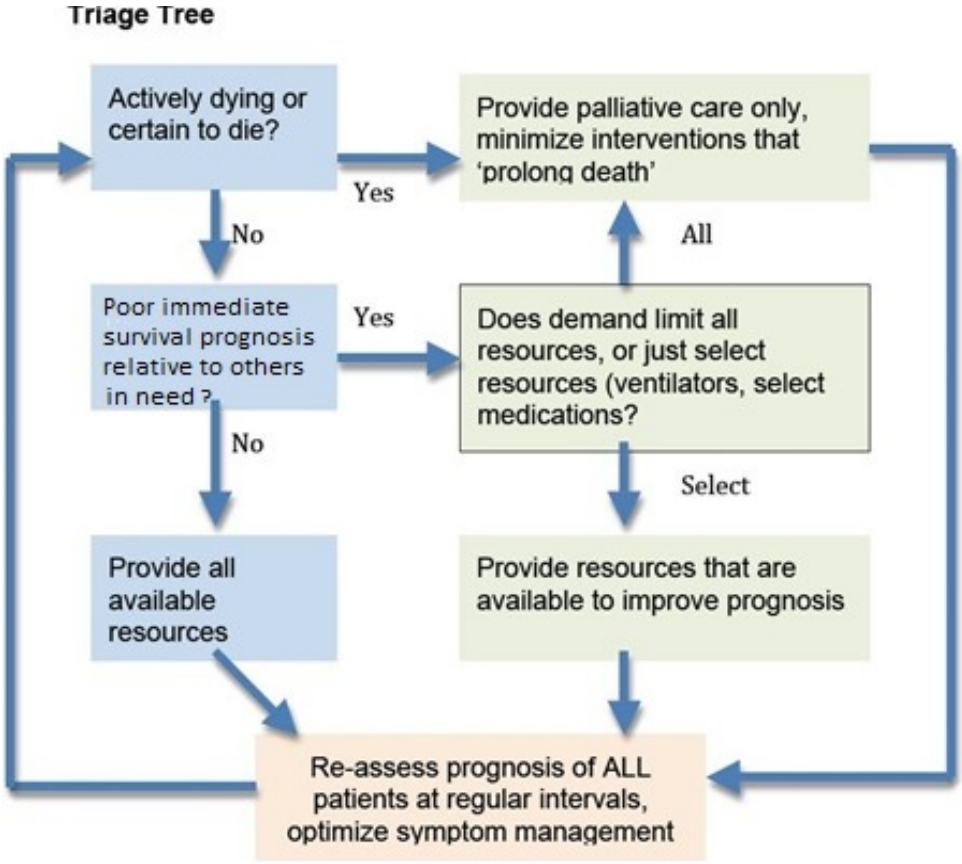
- Critically limited resource(s) and infrastructure are identified.
- Surge capacity is fully employed within health care facilities (and regionally) if capacity/space is the limited resource.
- Maximum efforts to conserve, substitute, adapt, and re-use are insufficient if supplies are the limited resource.
- Patient transfer or resource importation is not possible or will occur too late for bridging therapies (such as bag-valve ventilation or other temporizing measures) to be considered.
- Necessary resources have been requested from local and regional health officials (as applicable).
- A state of emergency has been declared, or other health powers (as applicable) have been activated.
- Regional, state, and federal resources are insufficient or cannot meet demand.

Before implementing proactive or tertiary triage, facilities must have firmly established triage processes and plans that take into consideration available objective evidence, resources, and have administrative backing of the facility. Every effort should be made to notify in advance local and regional partners to ensure outside resources or assistance is not available.

The Patient Care Strategies for Scarce Resource Situations at the end of this document can assist facilities in decision-making; however, it is ultimately up to the facility to determine and implement its own process. During triage situations, facilities and providers are still subject to federal and state anti-discrimination laws. In situations where proactive triage is required during a prolonged incident, CDPH may convene the Science Advisory Team (SAT) to provide recommendations to the State Public Health Officer. In turn, the State Public Health Officer may provide additional recommendations to California's health system during an incident. SAT team composition will be listed on CDPH's web site and process in place for stakeholder input on membership.

The tertiary (proactive) triage *process* is far more important than the specific clinical decision tools, which may vary based on the event. It is recommended frontline clinicians caring for patients should not be directly involved in the triage process; rather, they should provide clinical knowledge to the decision-making body who will make determinations of care. Facilities should have a Clinical Care Committee and/or Triage Team available for consultation. This function may be provided regionally and remotely. For example, health systems may provide this function for all their health care facilities and the same team may provide assistance to outside health care facilities that wish to refer patients or do not have the resources to make triage decisions. The Clinical Care Committee and/or subject matter experts should provide a process and agree on indications for treatment (e.g. specific medications) or approve decision tools for triage of ICU and other resources based on up to date information on the availability of scarce resources and an understanding on non-discrimination responsibilities.

Figure 2: Basic Triage Tree Based on Objective Medical Evidence



Ethical Considerations

A public health emergency compels transition from individual patient-focused clinical care to population-oriented public health approach with the goal of providing the best possible outcome for the largest number of impacted people. With regards to allocation and reallocation decisions facilities should establish a triage team or committee composed of people who have no clinical responsibilities for the care of the patient.

Basic biomedical ethical principles should be incorporated into decision-making regarding allocation of healthcare resources. These are:

- **Autonomy:** respect for persons and their ability to make decisions for themselves may be overridden by decisions for the greater good; however, patients must still be treated with dignity and compassion
- **Beneficence:** care providers must subordinate their personal and institutional interests and shift from those in the best interest of the patient to those in the best interest of the population as a whole
- **Justice:** equitable distribution of resources, allocation decisions applied consistently across people and across time, transparency and accountability, and fair processes and procedural justice to sustain public trust. In general, triage decisions must meet the five basic requirements outlined in the IOM/NAM 2012 publication:

- **Fair and Equitable:** process recognized as fair, equitable, evidence based, and responsive to specific needs of individuals and the population focused on a duty of compassion and care, a duty to steward resources, a duty to abide by nondiscrimination laws, and a goal of maintaining the trust of patients and the community.
- **Transparency:** in design and decision-making.
- **Consistency**: in application across populations and among individuals with reasonable modifications for disability.
- **Proportionality**: public and individual requirements must be commensurate with the scale of the emergency and degree of scarce resources (i.e. the restrictions on care should not be more restrictive than the situation requires – and this may require re-evaluation as more resources become available).
- **Accountability**: individuals making the decisions and the facilities and governments to support the processes and the providers.

Guiding ethical principles used in defining allocations of scarce resources and proactive or tertiary triage include:

- Duty to implement distributive justice (socially just allocation of goods)
- Duty to care: treat people with dignity and respect, and make decisions based on an individualized assessment based on objective medical evidence
- Duty to plan: steward resources and promote instrumental value
- Duty to transparency (in planning and implementation)

Further, any pandemic planning framework should be designed to achieve the following:

- To create meaningful access for all patients. All patients who are eligible for ICU services during ordinary circumstances remain eligible, and there are no exclusion criteria based on age, disabilities, or other factors, including those listed in Key Points.
- To ensure that all patients receive individualized assessments by clinicians, based on the best available objective medical evidence.
- To ensure that no one is denied care based on stereotypes, assessments of quality of life, or judgments about a person's "worth" based on the presence or absence of disabilities or other factors, including those listed in Key Points.
- To diminish the impact of social inequalities that negatively impact patients' long-term life expectancy by keeping in mind historic disparities and inequalities.

Ethical principles as applied to triage raise considerations of moral equality. Triage must respect equality and human dignity in the following ways, among others:

- **Protection and Provision for Vulnerable Populations**: Health systems should take deliberate, active steps to ensure that vulnerable or marginalized populations receive equal access to scarce resources. These should include, among other things; (1) reaching out to organizations and services designed to serve groups with special needs or groups that are particularly vulnerable or disadvantaged; (2) ensuring access for those with disabilities, limited English proficiency (LEP), and other groups with functional needs; (3)

mitigating or eliminating, as far as possible, the sense of distrust that some historically or currently disadvantaged people might feel towards the medical system in general or a triage system in particular; and (4) being prepared to participate in regional or statewide plans designed to ensure that the same resources are available and in use at similarly situated facilities – a step that helps mitigate or eliminate disparities of access and distribution among facilities.

- **Disability and Return to Previous State of Health**: Some triage protocols make allocation decisions based not only on overall predicted acute-episode survival but also on quality of life after treatment. Such protocols are sometimes viewed with suspicion by individuals with disabilities who fear that they are seen as having lower quality of life than non-disabled individual and; therefore, that they~~,~~ may be assigned lower triage priority in virtue of their disabilities. To ensure non-discrimination against individuals with disabilities, triage protocols must either not score individuals based on their quality of life after treatment, or assess at most how far treatment will return the patient to their own baseline quality of life. Decisions cannot be based on generalized assumptions about a person's disability. The mere fact that a person has diabetes, depression, an intellectual disability, or a mobility impairment, for example, cannot be a basis for denying care or making that person a lower priority to receive treatment. Treatment allocation decisions cannot be made based on misguided assumptions that people with disabilities experience a lower quality of life or that their lives are not worth living.

Surge Capacity

Surge capacity is a measurable representation of ability to manage a sudden influx of patients. It is dependent on a well-functioning HICS structure and the variables of space, supplies, staff and special considerations. All health care facilities are required by the Joint Commission to establish an emergency management process and define an EOP which details actions to increase surge capacity, with specific actions in three categories: space, staff, and supplies. These actions include but are not limited to defining additional treatment space and/or alternate care sites, early discharges, cancelation of surgeries and elective procedures, increasing staffing, and more.

Intensive Care Unit

Pandemics can result in a large need for intensive care. For planning purposes, ICU services should include the ability to provide cardiac monitoring, invasive monitoring, mechanical ventilation, and hemodynamic management. Many facilities do not provide these services, although at a minimum, they should be able to provide initial resuscitation and management awaiting transfer to another facility. In certain situations, a health care facility that normally refers critically ill patients may have to continue to provide care for hours to days longer than usual or may elect to provide ongoing critical care using transport ventilators and other resources. In these cases, critical care consultation should be obtained via phone or telemedicine to provide expert input on the care provided until transfer can be arranged or critical care is no longer required.

The American College of Chest Physicians has guidance documents on ICU surge

published in 2014. The executive summary with all the suggestions can be found at Introduction and Executive Summary Care of the Critically Ill and Injured during Pandemics and Disasters: CHEST Consensus Statement. Each of the sections has a supporting article (e.g. surge capacity logistics) with further details.

According to the key recommendations made by the American College of Chest Physicians, hospitals that provide inpatient critical care should be able to:

- Surge 20% of usual ICU capacity within hours
- Surge 100% of usual ICU capacity within 24 hours using facility or regional healthcare community assets
- Surge 200% of usual ICU capacity within days using regional, state, or federal assets

In order to accomplish this, health care facilities providing ICU services should determine the additional space they can use for ICU level care. Procedural and surgical areas including pre- and post-op care areas are likely targets as they may already have the monitoring equipment necessary for critical care. Health care facilities may wish to create a grid for ICU surge indicating the sequence/preference and numbers of beds (as well as additional supplies needed for those areas) to be used.

Few hospitals will have the ventilator and cardiac monitor resources to achieve a 100-200% surge, but understanding the needs and planning for it is critical to being able to request the necessary assets in a timely manner from regional and federal sources.

Inherent in the ICU surge plan is an understanding that the overall acuity at your health care facility will increase markedly and lower acuity patients may need to be discharged to outpatient care, referred to homecare or long-term care, or provided care at an alternate care site. This may necessitate changes in discharge protocols and health care facility policies about what patients will be cared for on what units.

Alternative Care Sites

Alternate Care Sites (ACS) can provide overflow hospital capacity during a pervasive or catastrophic public health event. By providing care to less complex inpatients, an ACS can increase a hospital's capacity to care for higher acuity patients. A hospital may open an on-site ACS or a community site in conjunction with the local health system (via multi-agency coordination) to staff and refer appropriate patients to the facility. Examples of some services available at an ACS include:

- Oxygen
- Intravenous fluids
- Medications
- Basic laboratory testing

Emergency or critical care services are generally not supported at an ACS. Health care services should also be available at community shelters including resources for those with chronic illness. If needed to meet surge demands an ACS should be implemented by HCC partners as part of a regional strategy to address incident demands and may include virtual as well as physical patient contact and interventions. In addition, the state may be able to support regional ACS with state or federal assets.

Palliative Care Services

As institutions change their optimal mode to crisis standards of care, the demand for primary and specialist palliative care will sharply increase. Palliative care plays an important role in responding to a pandemic by assisting with symptom management, decision-support, and emotional and spiritual support for patients and families. As early as possible, health systems and palliative care teams should devise plans to accommodate the surge in demand for palliative care services and the adaptations that will be required to deliver those services, given the unique constraints posted by the circumstances of the pandemic.

Conclusion

Effective crisis care planning for health care facilities depends on multiple factors including the following:

- Crisis conditions may be caused by severe increases in demand and/or facility damage and require immediate facility and regional response, with state actions supporting these response strategies.
- Crisis of care plans should be an extension of hospital surge capacity plans. Integration into the facility all-hazards EOP is important for a seamless response. Formal resource allocation and triage processes may be written into a separate appendix or attachment.
- Crisis conditions should prompt coalition and, when necessary, prompt state actions to assure that resources are obtained to move care back to contingency and then conventional status as soon as possible.
- Having a process to involve subject matter experts at the facility in the incident command process (including creation of a clinical care committee when feasible based on facility/health system size) is critical to assure fairness, adherence to anti-discrimination laws, and best clinical practices given the limitations of the situation.
- Having a triage process in place that includes provider awareness of anti-discrimination principles and the effects of bias are much more important than specific triage decision support tools.