

## ASPR TRACIE Technical Assistance Request

**Request Receipt Date (by ASPR TRACIE):** 16 November 2020

**Response Date:** 18 November 2020

**Type of TA Request:** Complex

### Request:

The requestor asked for information and guidance crisis standards of care and patient surge management for COVID-19.

### Response:

This document provides an overview of crisis care and crisis standards of care for situations where there are scarce resources available to care for high numbers of patients. Patient surge management strategies at the individual facility and community level are discussed and links to resources for more information and to operationalize the strategies are provided throughout.

### Crisis Standards of Care

**Crisis care** refers to the immediate healthcare-related decisions made when the health system is overwhelmed; whereas **crisis standards of care (CSC)** refers to the organizational support that healthcare institutions and government agencies implement systematically as a part of an emergency response plan. Crisis standards of care do not have to be “declared” at the state level but anytime a facility is practicing crisis care it should be working with coalition and state partners on support and solutions to return as quickly as possible to contingency or conventional care status. Consistency and fairness across the affected population is critical. Institutions should have systems in place to provide (or acquire) and organize “stuff, staff, space, and systems” with enough specialized expertise on-hand to adapt clinical practice and workflow to the situation.

**Figure 1** provides a visual description of the cyclical approach to evaluating a community’s continuum from convention to contingency to crisis conditions. The important steps to note are the constant process of analyzing and reanalyzing the community’s status and adapting processes for allocating scarce resources.

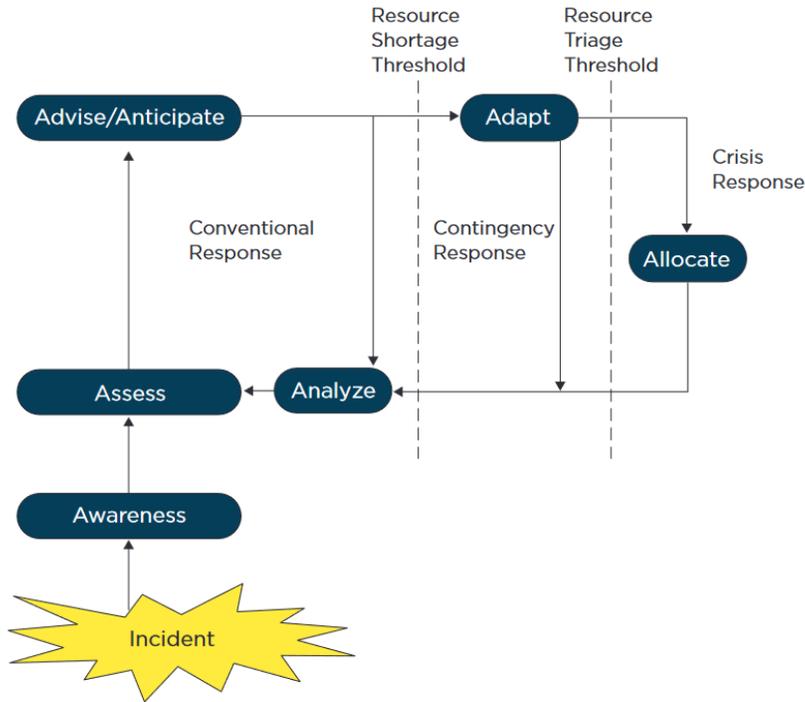


Figure 1. Source: [IOM Crisis Standards of Care: A Toolkit for Indicators and Triggers](#) document.

Figure 2 describes the linear progression from conventional to contingency to crisis standards of care. The goal is to anticipate and mitigate a slide towards crisis and to implement measures quickly to remain in conventional care. In many cases, the lines between contingency and crisis are not as clear as depicted as graded adaptations of resources such as staffing are not easily categorizable.

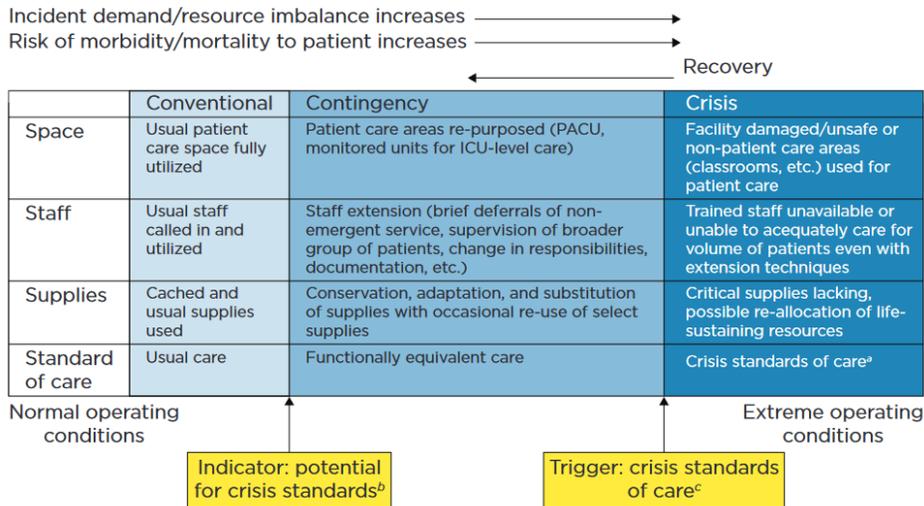


Figure 2. Source: IOM [Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response: Volume 1: Introduction and CSC Framework](#)

The ASPR TRACIE [Crisis Standards of Care in Infectious Disease Response](#) technical assistance response document and the ASPR TRACIE CSC Issue Summary for COVID-19 ([Appendix B](#)) provide additional information on CSC for COVID-19 response.

## Contingency and Crisis Condition Interventions within Individual Facilities

### Immediate Bed Availability Strategies

- Immediate, early discharge of stable inpatients
- Delay or postponement of “elective” procedures utilizing a scoring system for [medically necessary, time-sensitive](#) procedures
- Increase existing bed capacity by opening closed units and staffing unstaffed beds

### Expansion of Critical Care

- [Identification of overflow critical care areas](#)
- [Staffing adaptations to expand critical care](#)

### Expansion of Care Locations to Non-patient Care Areas

- Use of [tents or flex space](#) within the facility
- [Increase Staffing](#)

### Management of Scarce Resources

- Critical Care consultation team to provide input on patient care decisions that involve scarce resources
- [Guidelines](#) for adapting to scarce resource situations
- Unusual to need true “triage” team but consultation / problem solving are common and often benefit from consultation with subject matter expert

## Contingency and Crisis Condition Interventions within the Community

### Patient Load Balancing

Coordinated patient distribution within the community to utilize all community and regional available hospital beds

- Centralized patient coordination cell with hospital bed data from all facilities
  - Need a physician experienced with critical care to assist in determining patient placement when beds are scarce
- Liaison with emergency medical services for coordinated pre-hospital transport and interfacility transfers
- Can be coordinated within substate regions, such as healthcare coalitions
- Can be coordinated at the State level for load balancing across an entire State
- Can be coordinated at the interstate regional level to load balance patients across multiple States
- Ensures patients can be cared for in a hospital bed that has the most appropriate resources available for the patient’s needs

- [Considerations for Assessing Regional Patient Load-Balancing Effects during COVID-19](#)
- [Critical Care Load Balancing Operational Template](#)
- [Medical Operations Coordination Cells Toolkit First Edition](#)

### Alternate Care Sites (ACS)

[ACS](#) is a broad term for any building or structure of opportunity that is temporarily converted for health care use during a public health emergency to provide additional health capacity and capability for an affected community, outside the walls of a traditional established health care institution. To date, most of the community-based ACS sites have been under-utilized and have not significantly increased surge capacity of area systems with the exception of one in a small community that was disproportionately affected and could not move patients fast enough to meet demand. ACS areas may be established at the hospital in non-patient care areas – this proximity to medical care and operations may be superior to a community-based site.

- ACS can be established by a hospital, group of hospitals, or by a jurisdiction
- ACS can be used for many different types of hospital decompression, based on community bed needs

Resources are listed in [Appendix A](#) for more information.

## Appendix A: COVID-19 Surge Resource List

### Alternate Care Sites

- [Alternate Care Site Resources](#)
- [Alternate Care Sites \(ACS\) Sources of Additional Staff](#)
- [Alternative Care Sites-The Federal Experience in New York City](#)
- [COVID-19 Alternate Care Site Resources](#)
  - Featuring the following resources:
    - [ACS Funding Summary: Establishment and Operationalization.](#)
    - [Funding Sources for the Establishment and Operationalization of Alternate Care Sites.](#)
    - [Use of Telemedicine in Alternate Care Sites \(Webinar\).](#)
    - [Alternate Care Site \(ACS\) Toolkit: Third Edition](#)
    - [COVID-19 Alternate Care Strategies](#)
    - [Healthcare Capacity Building: Alternative Care Sites and Federal Medical Stations](#)

### Crisis Standards of Care

- [Crisis Standards of Care and Infectious Disease Planning](#)
- [Crisis Standards of Care Topic Collection](#)
- [COVID-19 Crisis Standards of Care Resources Collection](#)

### Immediate Bed Availability and Surge Capacity

- [COVID-19 Critical Care Surge Resources Collection](#)
- [COVID-19 Hospital Resource Compilation](#)
- [Hospital Intensive Care Unit \(ICU\) Surge Training Resources](#)
- [Considerations for the Use of Temporary Care Surge Sites for Managing Seasonal Patient Surge](#)
- [Healthcare Coalition Infectious Disease Surge Annex Template](#)
- [Hospital Surge Capacity and Immediate Bed Availability Topic Collection](#)

### Patient Load Balancing

- [Considerations for Assessing Regional Patient Load-Balancing Effects during COVID-19](#)
- [Critical Care Load Balancing Operational Template](#)
- [Medical Operations Coordination Cells Toolkit First Edition](#)

## Appendix B: CSC Issue Summary for COVID-19

At the start of the COVID-19 epidemic, crisis standards of care (CSC) plans were reviewed and updated by jurisdictions across the United States in anticipation of the potential need to ration ventilators and other critical equipment. As the pandemic has continued, we have had the opportunity to learn from domestic and international experiences. This discussion highlights some key applications for the implementation of CSC.

1. **CSC doesn't need a state declaration.** Though some states have “declared” CSC, CSC conditions may occur wherever demand exceeds resources. The crisis care techniques that healthcare facilities must implement will not wait for state actions. Hospitals and systems must have plans in place to assure that crisis conditions are mitigated through movement of patients and resources to minimize the time spent in crisis.
2. **MOCC – transfer to distribute loads.** Medical Operations Coordination Cells are critical to the “load-balancing” between hospitals that can help to equitably distribute patients across facilities in the area. In many areas, hospitals have been disproportionately burdened – particularly those in highly impacted border areas and those that serve at-risk communities – often inner-city trauma centers. One issue that has arisen with MOCC operations is the relatively frequent need for clinical providers to work with transferring and receiving hospitals to assure the patient is appropriate for the recommended transfer and advise on care-in-place until the transfer can be accomplished, as EMS resources are often taxed and transfers often delayed.
3. **Stay out of CSC.** One of the key goals is to *avoid* crisis standards of care and get back to contingency (functionally equivalent care) as soon as possible. Unfortunately, sometimes rather than look outside the facility or system, providers have made choices or implemented policies restricting services that they did not have to make, impacting the care of individual patients adversely. Planning for a step-wise degradation of services that is in step with other hospitals in the area is key to equitable care.
4. **Use a clinical consultant rather than a “triage team.”** In the Institute of Medicine (now National Academies of Medicine) reports of 2009 and 2012 advocated the use of triage teams when allocation of fixed resources like ventilators was required. More often, critical clinical consultation is required rather than ‘triage’ to help bedside providers that may not have much experience in critical care allocation problem-solve. This also helps hospitals track recurrent or systems issues, reduce provider moral injury for decision-making, and assure consistency. Further, the availability of expert consultants reduces ‘free-lancing’ triage decisions that some providers might be apt to make and enhances reasoned decision-making.
5. **Don't use scoring systems or triage “to” or “away” from critical care.** Use of scoring systems has been proposed for triage of ventilators and other life-saving therapies, including the use of SOFA (Sequential Organ Failure Assessment) scores. Ventilator

stockpiles at the state and federal level are much more robust than in early 2020 and use of mechanical ventilation has been reduced, limiting the potential that we will need to triage these therapies. Unfortunately, SOFA has not performed well in respiratory failure patients. Aside from advanced age, there are few good predictors of mortality in COVID-19 though some calculators are showing promise. However, there is NOT justification for using these calculators to deny critical care to individuals based on a score. Critical care in crisis should not be provided in a “place” as ICU overflow occurs step-wise into other areas of the hospital.

6. **ECMO.** There are few providers of ECMO services and these are highly resource-intensive. Regional coordination of ECMO should be established and prioritization of indications for ECMO agreed upon. At a certain point, available staffing may not permit continued ECMO services but this is a decision that should be made cooperatively if there are several providers in the area.
7. **Staffing and CSC.** Staff, particularly nursing and respiratory therapy have been the key limiting factor in critical care expansion during COVID-19. Staff are more elastic than resources such as ventilators. Staff should “step up” to providing somewhat higher levels of care than usual and “step over” to apply knowledge and skills in a different environment (e.g. OR / PACU to ICU). Moving to increased staff:patient ratios and changing to a tiered staffing system in which lesser trained providers are supervised by those who usually practice in that setting are the most commonly applied strategies. In no case should patients be denied critical care on the basis of limited critical care staffing – staffing should be extended and ICUs expanded to meet the needs as best as possible given the demand.
8. **Treatments.** Remdesivir, monoclonal antibodies, and other therapies have and will be in short supply initially. Some jurisdictions have determined that specific risk groups will receive preferential allocation (e.g. long-term care residents), some have included reciprocity for essential workers in their calculations / allocation, and some have included geographic factors such as the Area Deprivation Index (ADI) into allocation formulas to provide additional resources to at-risk areas. It is important to have a consistent regional or statewide policy and process that is ethically defensible, fair, and transparent. Because of the difficulty meeting demand, some variation on random number generators and other allocation methods have been used.
9. **Vaccine.** Assuring that tiers are established within priority groups to allocate limited amounts of vaccine to those that most need protection by their work setting, responsibilities, and personal risks promotes equity and efficacy of allocation. Planning for community/essential worker access to vaccine, particularly for those in at-risk communities should be a priority, as being eligible for and being able to easily access vaccine is *not* the same thing.