DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Emergency Medical Services and Preparedness Section

CRISIS STANDARDS OF CARE
CONCEPT OF OPERATIONS

Plan Approval Signatures

Reviewed By: _____ 4/28/20
Director, Office of Preparedness — Date

_____ 4/25/2020
Director, Office of EMS — Date

_____ 4/28/20
Chief, Emergency Medical Services and Preparedness Section — Date

Approved By: _____ 4/28/20
State Medical Director, Division of Public Health — Date

Approved By: _____ 4/29/2020
Director, Division of Public Health — Date

Executive Summary

Decision-making during extreme conditions shifts ethical standards to a functional framework in which the clinical goal is to do the greatest good for the greatest number of individuals in compliance with anti-discrimination laws covering all protected classes, including disability. As a result, optimal services that may be available at other times may not be available. In extreme conditions, it is necessary to provide standardized care dependent upon the specific conditions at the time. The Delaware Division of Public Health *Crisis Standards of Care Concept of Operations* serves as a reference resource with suggested guidelines to implement the crisis standards of care during a public health emergency.

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RECORD OF CHANGES

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1.0 Purpose

1.1 The purpose of the Delaware Division of Public Health (DPH) *Crisis Standard of Care Concept of Operations* (CSC CONOPS) is to establish a framework for the statewide approach and coordination of efforts during a public health emergency which requires adapted standards of care and allocation of scarce resources in order to provide effective care to the greatest number of people.

2.0 Scope

1.2 The CSC CONOPS is designed to provide healthcare facilities with guidance, best practices and resources for developing and implementing facility-specific crisis standards of care/altered standards care that:

- 2.1.1 Protect the public from harm while balancing ethical, legal and individual liberty considerations with a global incident perspective.
- 2.1.2 Provide the best possible medical care to the victims of disaster and patients within the healthcare system with the resources available.
- 2.1.3 Provide recommendations for modifications to and substitutions for accepted standards of care during normal operations.
- 2.1.4 Protect the overall integrity of the healthcare system and develop and use processes that enhance the integration of healthcare organizations into the community response.
- 2.1.5 Provide guidance for facilities to develop a decision-making framework for enacting an adapted level of care during times of limited healthcare resources.
- 2.1.6 Provide guidance for the reduction of regulatory and legal barriers to providing adapted levels of care during a healthcare crisis.
- 2.1.7 Provide for and establish a method to recover from the incident and return to the normal delivery of healthcare as soon as possible.

2.2 The CSC CONOPS applies to the role of the Delaware Division of Public Health, Emergency Medical Services and Preparedness Section (EMSPS)/State Health Operations Center (SHOC) to provide guidance, support and coordination for the statewide efforts to address public health and medical emergencies during situations which overwhelm the healthcare system.

2.3 The framework described herein is designed to provide guidance. The CSC CONOPS does not replace the need for individual organizational and/or facility level planning.

2.4 The CSC CONOPS is to be used in conjunction with existing plans, policies and guidelines.

3.0 Planning Assumptions

3.1 The following situations and assumptions are used to guide planning efforts and to help shape response and recovery activities. While not all situations and assumptions can be effectively predicted, the following may be applied:

- 3.1.1 Healthcare facilities should implement their existing Crisis Standards of Care/Altered Care and disaster plans for allocation of scarce resources and constrained staffing.
- 3.1.2 Hospitals should follow the credentialing process for acquiring staff.

3.1.3 The injured, sick, and those concerned about exposure, but not necessarily sick or injured will seek medical evaluation/treatment ("worried well"), causing increased demand on the healthcare facility or system.

3.1.4 Facilities should institute procedures to increase bed capacity and redirect resources to care for the most seriously ill or injured while critical medical/surgical and EMS 9-1-1 functions continue.

3.1.5 DPH will assist in the fair and equitable distribution of state resources, along with Delaware Emergency Management Agency (DEMA) and the local EMA.

3.1.6 DPH may activate the State Health Operations Center (SHOC) and coordinate with DEMA to provide logistical support, coordinate equipment, and supplies for patient care and medical countermeasures.

3.1.7 Decision-making during extreme conditions shifts ethical standards to a functional framework in which the clinical goal is to do the greatest good for the greatest number of individuals in compliance with anti-discrimination laws covering all protected classes, including disability.

3.1.8 Situations which create significant health system impacts will often deplete personnel, equipment, medication and other supply resources, making normal operations and conventional standards of care unsustainable.

3.1.9 In a large-scale emergency, healthcare systems may be compromised, at least in the near term, to deliver services consistent with established standards of care.

3.1.10 Vulnerable populations should be triaged and provided equal access to care irrespective of medical, physical, cognitive or emotional disability

3.1.11 Chronic diseases that affect mortality as related to the acute illness or injury should be considered during triage.

3.1.12 Large-scale incidents may require response and recovery efforts to last several weeks or months.

3.1.13 Federal relief resources may not be available for up to 96 hours or longer.

4.0 Preparedness

4.1 Healthcare facilities have a "duty to plan" for mass casualty and catastrophic disaster events, which includes planning and implementation of crisis Standards of Care.

4.2 All healthcare facilities should develop and maintain an actionable Crisis Standards of Care/Altered Care plan and/or policy which identifies triggers and clinical care adaptations to provide effective care to the greatest number of people.

4.3 Individual healthcare facilities must ensure that their respective staff is trained and prepared to provide care for patients under Crisis Standards of Care/Altered Care situations.

4.4 DPH supports crisis standards of care preparedness planning, education and training for public health stakeholders including Delaware Healthcare Preparedness Coalition (DHPC) member organizations.

4.5 DPH and the DHPC work together to prepare healthcare providers and organizations in Delaware for disaster incidents requiring allocation of scarce resources through regular communications, training, and exercises.

5.0 Definitions

5.1 Crisis Standards of Care. The substantial change in usual healthcare operations and in the level of care it is possible to deliver, which is made necessary by a pervasive (e.g., pandemic influenza) or catastrophic (e.g., earthquake, hurricane) disaster.[1]

5.1.2 This change in the level of care delivered is justified by specific circumstances and can be formally declared by a health care facility based on the current situation and available data, in recognition that crisis operations will be in effect for a sustained period.[2]

5.1.3 The health care facility should use its surge capacity, increase staffing, obtain additional resources, implement MOU's with other entities, and contact DPH for assistance.

5.2 Legal Standards of Care

5.2.1 The care and skill that a healthcare practitioner must exercise in particular circumstances is based on what a reasonable and prudent practitioner would do in similar circumstances.[3]

5.2.2 During declared states of emergency, however, the legal environment changes. Emergency declarations trigger an array of non-traditional powers that are designed to facilitate response efforts through public and private sectors.[4]

5.2.3 Emergency orders can be requested to (1) provide government with sufficient flexibility to respond; (2) mobilize central commands and infrastructures; (3) encourage response efforts by limiting liability; (4) authorize interstate recognition of healthcare licenses and certifications; (5) allocate healthcare personnel and resources; and (6) help to change medical standards of care and scope of practice.[4]

5.2.4 The extent of legal powers during emergencies, however, depends on the type of emergency declared.[4,5]

5.2.5 The federal government, every state, many territories, and some local governments may declare either general states of "emergency" or "disaster" in response to crises that affect the public's health. Such declarations largely

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1 Institute of Medicine (US). Barriers to Integrating Crisis Standards of Care Principles into International Disaster Response Plans: Workshop Summary. Washington (DC): National Academies Press (US); 2012. Available from: https://www.ncbi.nlm.nih.gov/books/NBK91501/ doi: 10.17226/13279)

2 Institute of Medicine (US) Forum on Medical and Public Health Preparedness for Catastrophic Events. Crisis Standards of Care: Summary of a Workshop Series. Washington (DC): National Academies Press (US); 2010. B, Summary of Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report. Available from: https://www.ncbi.nlm.nih.gov/books/NBK32748/

3 Institute of Medicine (US) Committee on Guidance for Establishing Standards of Care for Use in Disaster Situations; Altevogt BM, Stroud C, Hanson SL, et al., editors. Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report. Washington (DC): National Academies Press (US); 2009. LEGAL ISSUES IN EMERGENCIES. Available from: https://www.ncbi.nlm.nih.gov/books/NBK219960/

4 Committee on Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations; Institute of Medicine. Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response. Washington (DC): National Academies Press (US); 2012 Mar 21. 3, Legal Issues in Emergencies. Available from: https://www.ncbi.nlm.nih.gov/books/NBK201075/

5 The Delaware Constitution. Title 20, Chapter 31. Available from: https://delcode.delaware.gov/title20/title20.pdf

authorize emergency management agencies and others to use general legal powers to coordinate emergency responses.[4]

5.2.6 An array of state and federal liability protections exists for providers—government entities and officials acting in their official duties—who act in good faith and without willful misconduct, gross negligence, or recklessness.[4]

5.3 Medical Standards of Care[5]

5.3.1 The type and level of medical care required by professional norms, professional requirements, and institutional objectives.

5.3.2 Medical standards of care vary (1) among types of medical facilities such as hospitals, clinics, and alternate care facilities, and (2) based on prevailing circumstances, including during emergencies.

5.3.3 Federal laws requiring reasonable accommodations remain in effect even when the crisis standards of care are invoked.

5.4 Memorandum of Understanding (MOU) - A formalized relationship with mutual recognition of services available for collaboration in the event of a disaster.[6]

5.5 Scope of Practice- Refers to the extent of a licensed or certified professional's ability to provide health services pursuant to their competence and license, certification, privileges, or other lawful authority to practice.[7]

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4 Committee on Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations; Institute of Medicine. Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response. Washington (DC): National Academies Press (US); 2012 Mar 21. 3, Legal Issues in Emergencies. Available from: https://www.ncbi.nlm.nih.gov/books/NBK201075/

5 IOM (Institute of Medicine). 2009. Guidance for establishing crisis standards of care for use in disaster situations: A letter report. Washington, DC: The National Academies Press.

6 DPH Crisis Standards of Care

7 Institute of Medicine (US) Committee on Guidance for Establishing Standards of Care for Use in Disaster Situations; Altevogt BM, Stroud C, Hanson SL, et al., editors. Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report. Washington (DC): National Academies Press (US); 2009. LEGAL ISSUES IN EMERGENCIES. Available from: https://www.ncbi.nlm.nih.gov/books/NBK219960/

6.0 Roles and Responsibilities

RESPONSE ENTITY	ROLE	RESPONSIBILITIES
Office of the Governor	Ultimate authority for State response	• Approves state disaster declaration requests • Issues emergency declarations and specific emergency orders to address incident specific issues • Requests Federal Emergency or Disaster Declaration • Activate the Delaware National Guard as the situation warrants
Department of Health and Social Services	Public Health Authority during Public Health Emergency	• May require in-state health care providers to assist in the performance of vaccination, treatment, examination or testing of any individual. • May appoint out-of-state emergency health care providers as reasonable and necessary for emergency response. • May purchase and distribute antitoxins, serums, vaccines, immunizing agents, antibiotics and other pharmaceutical agents or medical supplies that it deems advisable in the interest of preparing for or controlling a public health emergency without any additional legislative authorization.
Division of Public Health (DPH) – Director	State Health Officer (SHO) Guides state public health and medical response	• Request state disaster or public health emergency declarations to the DEMA Director and governor's emergency orders as required to support response • Issues orders as appropriate to the event to protect the public's health • Authorizes SHOC activation
DPH – General Agency	State lead agency for health-related issues	• Convene the Public Health and Medical Ethics Advisory Group to discuss or develop incident-specific medical resources, clinical guidelines and triage criteria as requested by an organization or the SHO. • DPH Public Information Officer (PIO) will develop DPH communications to the public and providers on the crisis issues

RESPONSE ENTITY	ROLE	RESPONSIBILITIES
DPH –Emergency Medical Services and Preparedness Section (EMSPS)	Coordinate public health and medical response	• Coordinates DPH response • Stand up the SHOC as needed • Coordinate and work with the Public Health and Medical Ethics Advisory Group • Liaison to DHPC • Support information exchange, situational awareness and policy development with DHPC partners, DEMA and other state and local partners as necessary • Facilitate healthcare resource requests to state/inter-state/federal partners • Provide DPH liaison to DEMA • Provide health related guidance to healthcare facilities, and other community partners and members • Provide incident-specific emergency medical services (EMS) protocols and triage guidelines • Request inter-state or federal (i.e., Federal Ambulance Contract) mutual aid resources through the Delaware Emergency Management Agency (DEMA)Activate DPH Plans as needed
Public Health and Medical Ethics Advisory Group	Advise SHO and/or SHOC Manager	• Provide ethical public health recommendations based on best practices including the allocation of scarce resources, to the SHO and/or SHOC manager.
DPH – Northern and Southern Health Services	Community Health	• Assist with PODs, shelters and SHOC staffing as needed
DPH – Office of Communications	Public information and Risk Communications	• Participate in Joint Information System/Joint Information Center (JIS/JIC)
DEMA	State lead agency for emergencies	• State level coordination of overall disaster and recovery • Requests State Declaration of Emergency to the Governor • Recommend and request a Federal Disaster Declaration request to the Governor • Act as a liaison for federal government resource requests as needed • Public Safety Authority during Public Health Emergency
Delaware Department of Transportation (DelDOT)	Transportation Coordination	• Activate and coordinate the DelDOT All-Hazards Evacuation Transportation Plan as needed • Assist in the moving of patients between facilities as appropriate
Health Care Facility	Implement the Crisis Standards of Care Plan	• Facility recognizes internal need and implements the facility's Crisis Standards of Care Plan. • Stand up facility's Health Care Command Center • Contacts SHOC that they have implemented their Crisis Standards of Care Plan

RESPONSE ENTITY	ROLE	RESPONSIBILITIES
Emergency Medical Services	Emergency Medical Services, Patient Transfer	• Support hospitals by county and state level coordination of EMS surge capacity implementation • Deploy ground and air ambulances, mass casualty buses from region as requested through DEMA • Adopt state-approved, temporary protocols until the Medical Director advises differently • Coordinate destination hospitals using triage techniques to avoid overloading a single facility • State-approved protocols may alter field triage standards to allow for transport to alternate facilities and to allow for not transporting certain patients

7.0 Concept of Operations (CONOPS)

7.1 As a result of significant healthcare system impact, ordinary standards of care and operations might not be available to meet the needs of the patient population. An altered standard of care and operation should be set up.

7.2 Direction and Control

7.2.1 DEMA retains command and control over emergencies within the State of Delaware.

7.2.2 The DPH Director/SHO is responsible for directing the DPH response to a public health emergency or disaster incident.

7.2.3 The Delaware Public Health and Medical Ethics Advisory Group (Medical Ethics Group) provides public health ethical guidance, including recommendations for CSC.

7.2.4 DPH, EMSPS, Office of Emergency Medical Services (OEMS) provides a Coalition Coordinator for the DHPC member organizations to coordinate MSCC Tier 2 coalition mutual aid activities and share information with local emergency management agencies (EMAs). The Coalition Coordinator is absorbed into the SHOC Healthcare Services Branch (HSB) when the SHOC is activated.

7.2.5 Each healthcare system stakeholder conducts emergency operations using the principles of the National Incident Management System (NIMS) and the incident management system (IMS).

7.2.6 Depending on the overall scope and impact of the disaster incident or public health emergency, affected healthcare stakeholders should implement their disaster plans and notify their local EMA and OEMS.

7.2.7 DHPC member organization incident management and coordination procedures are outlined in the DHPC Emergency Operations SOG.

7.2.8 When activation of the SHOC is indicated, the DPH Emergency Operations Coordination Annex describes the procedures for DPH incident management.

7.2.9 The SHOC may dispatch a DPH Liaison (as available) to affected facilities for the purposes of supporting the facilities' Hospital Command Center (HCC) and increasing situational awareness with the SHOC and other response and recovery partners.

7.3 Continuum of Care

7.3.1 Modified or crisis standards of care occurs along a conventional-contingency-crisis continuum based on resource availability and demand for healthcare services. **SEE FIGURE 1.**

7.3.2 Conventional Care

A. The demand for care is less than the supply of resources.

B. Level of care is consistent with daily practices in the institution.

7.3.3 Contingency Care

A. The demand for care surpasses conventional resources availability, but it is possible to maintain a functionally equivalent level of care quality by using contingent care strategies.

i. Extend supplies and conserve resources.

ii. Expand providers' scope of practice.

iii. Tailor rationing strategies to different levels of scarcity.

iv. De-prioritize people who are unlikely to benefit from the resource.

v. The facility's Emergency Operations Plan is activated.

7.3.4 Crisis Care

A. The demand for care surpasses resource supply despite contingency care strategies.

B. Normal quality standards of care cannot be maintained.

C. Decision-making shifts from patient-centered to population-centered outcomes.

D. Changes in the methods and locations of care delivery present a significant increased risk to adverse outcomes.

Figure 1: Conventional Contingent Crisis Table: As Demand Increases, So Does Risk to Patients

	Conventional	Contingency	Crisis
Space	Normal patient care space fully utilized.	Patient care areas have been repurposed.	Facility has been damaged / unsafe, non-patient areas are being used for patient care.
Staff	Usual staff are called in and being utilized.	Staff Extension has occurred. Staff are overseeing a larger than normal number of patients, some roles and responsibilities have been shifted.	There is an insufficient number of trained staff working. Staff are being tasked with jobs they are not trained in.
Supplies	Cached supplies, supplies are readily available.	Supplies are being conserved, substitutions are happening, and items are being reused when possible.	Critical supplies are lacking, allocation of lifesaving measures is happening.
Standard of Care	Usual Care	Minimal impact on usual care/ care may be delayed if possible.	Crisis care / limited care. Patients are being triaged. Care is not consistent with usual standards of care guidelines.

7.3.5 Majority of incidents can be handled using conventional and contingency care.

7.4 Indicators and Triggers

7.4.1 An indicator is "a measurement or predictor of change in the demand for healthcare services or availability of resources" (e.g., a hurricane warning, or a report of several cases of unusual respiratory illness).

A. May or may not identify a need to transition to contingency or crisis care

B. Situational Awareness

i. Local/regional

ii. State

iii. National

C. Event specific

i. Illness and injury - incidence and severity

ii. Disruption of social and community functioning

iii. Resource availability

7.4.2 Triggers for action

A. These are situations that should prompt healthcare facilities to move from normal standards of care to a modified standard of care based on available resources.

B. The following is a list of several (not all-inclusive) potential triggers:

i. Supply chain shortage (IV fluid, medication, antibiotics, blood products, PPE, etc.)

ii. Ventilator shortage

iii. Patient surge

iv. Critical care beds

v. Inpatient beds

vi. Staff shortage

vii. Critical infrastructure disruption (electricity, water, HVAC, etc.)

7.5 CONOPS Implementation

7.5.1 The success of DPH's response to a CSC situation relies on two major activities:

A. Information sharing and response coordination with the DHPC enabling rapid identification of potential crisis conditions as well as information to assure resource balancing and consistency of care.

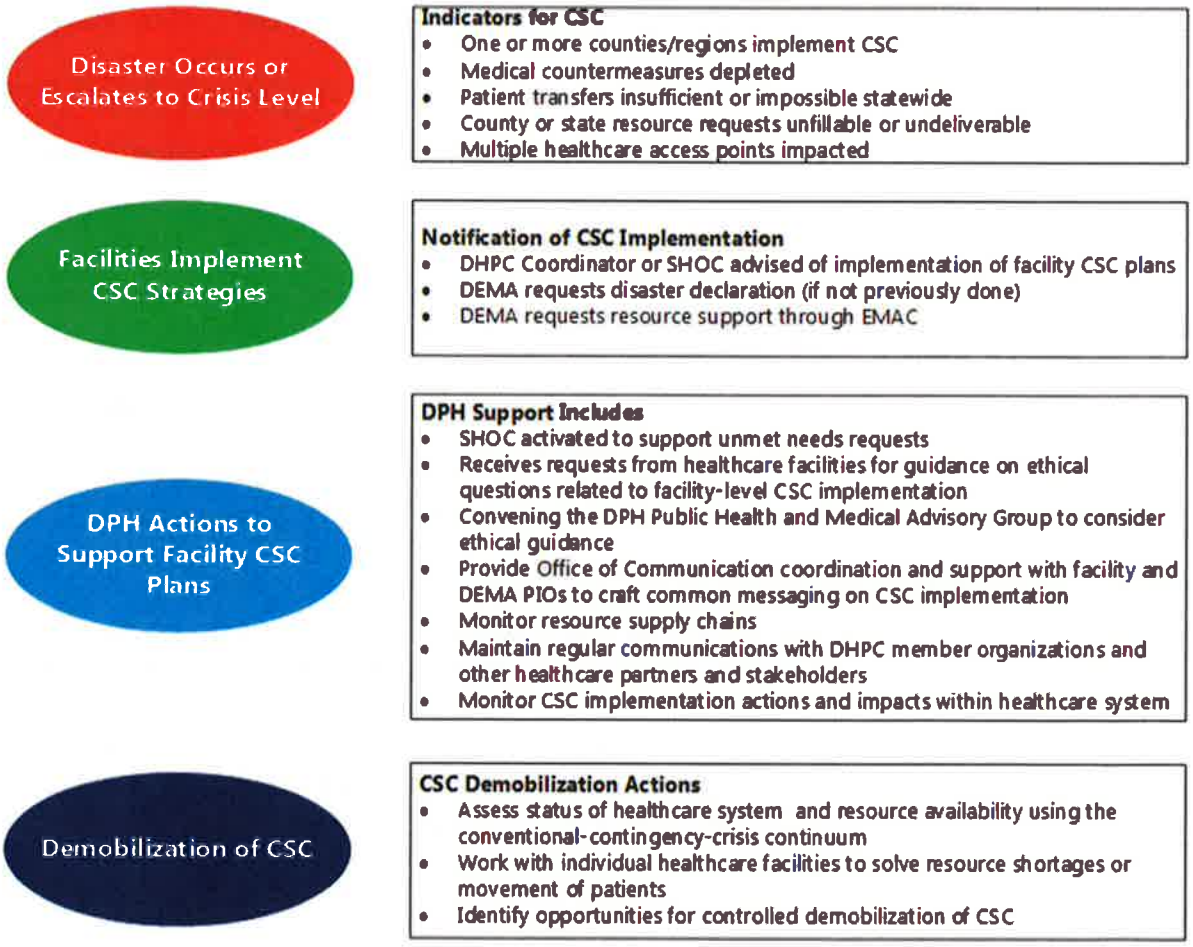
B. Operational crisis care planning at the facility and agency level that identifies ways in which DPH can support local response.

7.5.2 A facility or agency that recognizes the need for the implementation of crisis standards of care may notify any of the following: SHOC (if activated), DHPC coordination, local EMA.

7.5.3 County, agency or facility officials will identify the need and make a request to DEMA and SHOC of situation.

7.5.4 The Medical Ethics Board will coordinate with DPH Director and SHOC to provide a recommendation for activation of CSC and to request a disaster declaration if needed. **SEE FIGURE 2.**

Figure 2 – Crisis Standards of Care Implementation Chart



7.6 Public Health and Medical Ethics Advisory Group (see ***Appendix A: Medical Ethics Advisory Council SOG***)

7.6.1 Principles

A. Ensure objective and unbiased allocation of resources.

B. Patient's being triaged should be anonymous to ensure no biases are introduced into the process.

C. Once the facilities plan is implemented, all levels of medical care (prehospital, out-patient, inpatient, etc.) should be triaged using the same criteria.

D. Based on event, allocation of treatments may prioritize the number of patients who will recover over the number of life-years saved.

E. For decision-making purposes, patient self-reported health records should be accepted as accurate and complete.

F. Key worker prioritization may be considered in extreme circumstances.

i. Key workers are those who provide services for or during the event, or those who provide societal functioning services during recovery efforts such as: healthcare workers, first responders, etc.

G. Allow patient care providers to continue to be advocates for their patients (by eliminating them from the triage and resource allocation decision process).

H. Ensure palliative care (if possible) to all patients, regardless of their expected outcome.

I. Insulate the patient care providers from the moral and ethical dilemmas of disaster triage.

7.6.2 Triage Tool Framework Guidelines

A. Order patients from most sick to least sick.

B. Intermediate or long-term prognosis or survival may not be factors in determining priority for emergency lifesaving treatment.

i. Attempts to predict long term prognosis, especially for persons with disabilities, can lead to erroneous, inconsistent, and subjective decision-making in violation of federal antidiscrimination laws.

C. Triage Tool should NOT be utilized to withhold lifesaving resources if they are available.

D. Triage should be guided by the acute severity of the patient's current medical condition, the epidemiology of the disease, and the current status of any underlying medical diseases that may hinder recovery from the current public health emergency.[8]

i. Triage Officers should not factor a patient's pre-hospitalization quality-of-life or predictions of future quality-of-life into the assignment of priority scores.[8]

8 Crisis Standards of Care Planning Guidance for the COVID-19 Pandemic. The Commonwealth of Massachusetts Executive Office of Health & Human Services, Department of Public Health. Available from: https://d279m997dpfwgl.cloudfront.net/wp/2020/04/CSC_April-7_2020.pdf

E. Triage Tool will afford vulnerable populations the same triage and resource allocation strategies as all other populations, without differentiation as a result of disabilities or vulnerabilities.[9]

F. Healthcare workers have an ethical obligation to provide care in cases of medical emergency and must also uphold ethical responsibilities not to discriminate based on race, gender, sexual orientation or gender identity, socioeconomic status, infectious disease status or other personal or social characteristics (e.g. medical, physical, cognitive, or emotional disabilities) that are not clinically relevant to the individual's care.[10]

G. Triage decisions should be governed by individualized assessments of each patient's potential for survivability to discharge.

H. A Triage Tool score should NOT be used to exclude or differentiate among treatment/allocation groups; scores should be used to compare prognosis among patients requiring critical care.

I. Triage and treatment decision framework priority considerations:

i. For example, SOFA or PRISM score as appropriate.

ii. Triage teams should avoid penalizing individuals with chronic but stable underlying conditions, including individuals with disabilities, when calculating SOFA scores.

iii. Resource commitment and duration (ventilator time needed for flash pulmonary edema vs. ARDS, volume of blood products, etc.)

- Reasonable accommodations to triage protocols for individuals with disabilities should be considered, including the extension of ventilator trial periods to allow additional time to demonstrate effective progress because of their disability.

iv. Ongoing resource needs related to event (short term efforts which cannot be supported by long-term resources).

- Individuals presenting for hospital level care will not be subject to the automatic withdrawal, removal or redeployment of personal lifesaving equipment, including ventilators, based on discriminatory assumptions about their intensity of need or likelihood of recovery

v. Age as related to survivability of injury or illness (such as with burns, trauma, etc.)

vi. Key worker consideration (consider prioritization after all prognosis factors have been considered).

- Baseline levels of impairment should not increase SOFA scores unless evidenced as interpreted by an expert medical professional demonstrating that those

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9 Dries, D., Reed, M. J., Kissoon, N., Christian, M. D., Dichter, J. R., Devereaux, A. V., & Upperman, J. S. (2014). Special Populations. *Chest*, *146*(4). doi:10.1378/chest.14-0737

10 AMA. Prospective Patients. Code of Medical Ethics Opinion 1.1.2. Available from: https://www.ama-assn.org/delivering-care/ethics/prospective-patients.

conditions directly impact an individual's short-term survivability.

vii. First come, first served for available resources.

J. Provide supportive and/or palliative care to all patients not prioritized to receive resources and/or services.

K. Reassess existing and incoming patients for the appropriate allocation and/or continued use of resources.

Figure 3 – Sequential Organ Failure Assessment Score (SOFA)[11]

System	Score				
	0	1	2	3	4
Respiration					
Pa02/FiO2,	≥400	<400	<300	<200	<100
mm hg (kPa)	(53.3)	(53.3)	(40)	(26.7) with respiratory support	(13.3) with respiratory support
Coagulation					
Platelets x $10^3/\mu L$	≥150	<150	<100	<50	<20
Liver					
Bilirubin,	<1.2	1.2-1.9	2.0-5.9	6.0-11.9 (102-	>12.0
mg/dl (µmol/L)	(20)	(20-32)	(33-101)	204)	(204)
Cardiovascular					
MAP	≥70 mm hg	<70 mm hg	DA<5 or Db (any dose)[b]	DA 5.1-15 or E-≤0.1 or NE≤0.1[b]	DA>15 or E>0.1 or NE >0.1[b]
CNS					
GCS	15	13-14	10-12	6-9	<6
Renal					
1.Creatinine, mg/dl (µmol/L)	<1.2 (110)	1.2-1.9 (110-170)	2.0-3.4 (171-299)	3.5-4.9 (300-440)	>5.0 (440)

11 Razack, G. & Kavya, T. & Manjunath, B. & Ali, Mohammed & Avinash, K. & Harindranath, H.. (2019). Utility of sequential organ failure assessment score in predicting outcome for patients with peritoneal sepsis. International Surgery Journal. 6. 696. 10.18203/2349-2902.isj20190817.

Figure 4 – PRISM Score

PRISM III Score

Variables	Age Restrictions and Range		Score
Systolic BP in mm Hg	Infants 130-150 55-65 >160 40-54 <40	Children 50-200 65-75 >200 50-64 <50	 2 6 7
Diastolic BP in mm Hg	All ages >110		6
Heart rate in beats per minute	Infants >160 <90	Children >150 <80	 4 4
Respiratory rate in breaths per minute	Infants 61-90 >90 apnea	Children 51-70 >70 apnea	 1 5 5
PaO2/FiO2	All ages	200-300 <200	2 3
PaCO2 in torr (mm Hg)	All ages	51-65 >65	1 5
Glasgow coma scale	All ages	<8	6
Pupilary reactions	All ages	Unequal or dilated Fixed and dilated	4 10
PT/PTT	All ages	1.5 times control	2
Total bilirubin mg/dL	>1 month	>3.5	6
Potassium in mEq/L	All ages	3.0-3.5 6.5-7.5 <3.0 >7.5	1 1 5 5
Calcium in mg/dL	All ages	7.0-8.0 12.0-15.0 <7.0 >15.0	2 2 6 6
Glucose in mg/dL	All ages	40-60 250-400 <40 >400	4 4 8 8
Bicarbonate mEq/L	All ages	<16 >32	3 3

9. Validation of PRISM III (Pediatric Risk of Mortality) Scoring System in Predicting Risk of Mortality in a Pediatric Intensive Care Unit. 2019

7.7 Patient Management

7.7.1 Needs of current patients and the resources they use should be a part of the overall resource allocation.

7.7.2 Usual scope of practice standards may not apply.

7.7.3 Equipment and supplies should be rationed and used in ways consistent with achieving the ultimate goal of saving the most lives.

7.7.4 Current documentation standards may be impossible to maintain.

7.7.5 Providers may need to make treatment decisions based on clinical judgment.

7.7.6 Determine "needed care".

A. Decrease vital signs checks.

B. Evaluate inpatient needs and prioritize appropriately.

C. Reduce documentation as needed.

D. Cancel non-emergent procedures.

E. Elective procedures that might result in the use of a ventilator should be postponed.

7.7.7 Increase space capacity per Medical Surge Plan

A. Rapid discharge of ED and other patients who can continue their care at home safely.

B. Cancellation of elective surgeries and procedures with reassignment of surgical staff members and space.

C. Expansion of critical care capacity by placing select ventilated patients on monitored beds in the step-down area.

D. Conversion of single rooms to double rooms or double rooms to triple rooms if possible.

E. Use of beds and cots in flat space areas such as meeting rooms and public areas for noncritical patient care.

F. Care at home by family.

G. Care at home by home health agencies.

H. Treat and release by EMS, family physician or clinic.

I. Establish alternative care sites in conjunction with other healthcare entities and DPH.

7.7.8 All available means of "surge capacity" must be created:

A. Plan for staff shortages.

B. Recall appropriate staff members.

C. Provide family care services if possible and appropriate.

7.8 Information Sharing

7.8.1 Communications

A. Communications will be initiated in accordance with the DPHC SOG and the DPH Information Sharing Annex as well as other regional and individual county communications plans.

B. The Coalition Coordinator or SHOC Logistics Section is responsible for creating and distributing a Communications List (Form ICS-205a) to all participating organizations.

7.8.2 Situational Awareness

A. A real-time exchange of information will be utilized through all levels of the incident. All affected facilities and organizations should participate in

this exchange of information utilizing the communication methods described in the Communications Section located in paragraph 7.8.1.

B. The Coalition Coordinator or the SHOC Planning Section (when activated) is responsible for determining a common operating picture, identifying essential elements of information, and establishing planning priorities.

C. The Coalition Coordinator/SHOC and county EOCs should maintain situational awareness and coordinate county resources in collaboration with the Coalition Coordinator/SHOC Planning Section.

7.8.3 EMS, EMA, and 9-1-1

A. Ongoing communications and updates should be provided by healthcare facilities to the Coalition Coordinator/SHOC, EMA, 9-1-1, and EMS through the utilization of patient census and response data from the DE TRAC system.

B. 9-1-1 should provide ongoing communications and updates regarding transportation resource availability and timeline.

7.8.4 Media and Public Information

A. Individual facilities may address media request per their regular procedures.

i. DPH requests that facilities consult with the DPH Office of Communications (OComms) prior to responding to the media request.

B. The process for DPH management of requests for information from the media will be determined by the DPH PIO working within the SHOC structure or through a JIC. The SHOC and the JIC will also be responsible for managing all requests for information from the media.

C. Clear communication with the public is essential before, during and after the event.

i. Spokespersons at all levels-local, state, regional, and federal-should coordinate their message.

ii. Patients and families should be informed of the crisis standards of care process.

7.8.5 Additional guidance for information sharing can be found in the EMSPS Information Sharing Annex.

7.9 Palliative care principles

7.9.1 The goals of palliative care are relief from suffering, treatment from pain, psychological and spiritual care, and a support system to help the patient, the family, and caregivers.

7.9.2 Clinicians should provide documentation of the rationale and decision process.

7.10 Mental Health Needs and Promotion of Resilience

7.10.1 Everyone affected by disaster is, in some sense, a disaster survivor, including responders.

7.10.2 Providing a framework for crisis standards of care may support providers by implementing a structured approach and minimizing the role of individual providers in difficult triage decisions.

7.10.3 Responding mental health agencies should focus on providing services to those with pre-existing and emerging mental health effects.

7.10.4 In a CSC event, access to psychiatric treatment and medications may be severely limited.

7.10.5 Shortage of trained mental health providers and resources may also be limited. May need to utilize:

A. Peer support services

B. Telehealth services

C. Psychological first aid techniques

7.10.6 Behavioral health support to incident command and responders, facilitation of mental/behavioral support services at health care facilities, and support of community resilience through messaging and technical assistance is provided by:

A. Division of Substance Abuse and Mental Health (DSAMH) for adults

B. Department of Services for Children, Youth, and Their Families (DSCYF) for children and adolescents.

8.0 Logistics

8.1 Staffing considerations and coordination

8.1.1 Recall of off duty staff

8.1.2 Reassigning of staff

8.1.3 Delaware Medical Reserve Corps (DMRC)

8.1.4 National Disaster Medical System (NDMS)

8.2 Space

8.2.1 On-campus alternate care sites or emergent expansion plans (subject to waivers).

8.2.2 Staging areas.

8.3 Supplies and Equipment

8.3.1 Supplies must be rationed in a way consistent with the goal of saving the greatest number of people.

8.3.2 Disposable supplies may need to be re-used during severe shortages.

8.3.3 If laboratory and radiology resources are exhausted, treatment decisions may need to be made based solely on physical exam, history, and clinical judgment.

8.3.4 MOU's with governmental and private entities should be implemented to maintain resources.

9.0 Deactivation

9.1 Triggers

9.1.1 Actions taken in response to a crisis are limited to those required to address the shortfall. Restrictions on access should not last longer than necessary.

9.1.2 As resources become more available and patient census returns to a manageable level, demobilization should occur.

9.1.3 DPH will monitor for opportunities to demobilize resources when it is clear that it is safe to do so.

10.0 After Action Review

10.1 An After Action Report (AAR) and Improvement Plan should be created after the implementation of a facility's crisis standards of care plan. For the sake of patient health and safety, it is important to identify what went right and areas that need improved on.

11.0 Legal Authority and Environment Legal Authority and Environment

- 11.1 Standards of Care – Delaware (compare to regional standards).
  - 11.1.1 Medical
    - A. See the Delaware Public Health and Medical Ethics Advisory Group for guidance/questions/concerns.
  - 11.1.2 Legal. The Standard of Care is the duty owed to a patient by a provider. It can be general or specific to a procedure. Breach of the standard of care can lead to liability.
- 11.2 Scope of Practice
  - 11.2.1 Licensed (Nursing, Physician extenders, EMS providers, etc.)
  - 11.2.2 Non-licensed/Certified (CNAs, other healthcare workers).
  - 11.2.3 Opportunities for scope of practice modification/use of lesser trained providers to expand capacity (e.g. EMT's for assessments and vital signs while nurses pass meds).
- 11.3 Disaster Declaration type and authority
  - 11.3.1 Federal Declaration Types
    - A. Department of Health and Human Services
      - i. Public Health Emergency Declaration
      - ii. Public Readiness and Emergency Preparedness Act (PREP Act) Declaration
    - B. Federal Emergency Management Agency
      - i. Major Disaster Declaration
      - ii. Emergency Declaration
    - C. Presidential
      - i. Stafford Act Declaration
      - ii. National Emergencies Act Declaration
  - 11.3.2 State
    - A. State of Emergency
    - B. Public Health Emergency
- 11.4 Special emergency protections/waivers
  - 11.4.1 1135 Waiver
    - A. Authorizes the Secretary of Department of Health and Human Services to adjust certain Medicare, Medicaid, CHIP, EMTALA and HIPPA requirements in catastrophic situations.
  - 11.4.2 Other waivers/protections
- 11.5 Licensing and credentialing
  - 11.5.1 Hospitals should follow their credentialing process plans which are in place to acquire new staff.
  - 11.5.2 Medical malpractice
- 11.6 Liability risks
  - 11.6.1 Civil
  - 11.6.2 Criminal
  - 11.6.3 Constitutional
- 11.7 Statutory, regulatory, and common-law liability protections
- 11.8 Anti-discrimination

11.8.1 Federal and state laws protecting those with disabilities and requiring reasonable accommodations remain in effect even when the facility is operating under a crisis standard of care. All guidelines must be consistent with anti-discrimination laws covering all protected classes, including disability.

11.9 Appeal process

11.9.1 Facilities should consider developing appeal processes for individuals impacted by the triage tool and crisis standard of care. The appeal process should be accessible, transparent and accountable.

12.0 Community and Provider Engagement, Education, and Communication

12.1 Public

12.1.1 Public engagement activity planning

12.1.2 Focus on vulnerable populations

12.1.3 Build trust through transparency

12.2 Public Officials

12.2.1 Brief on plan

12.2.2 Identify roles

12.3 Legal review

12.3.1 Legal authority description

12.3.2 Federal, state, local regulatory compliance

12.4 Education and Communication

12.4.1 Palliative care education for stakeholders

12.4.2 Community Stakeholder education

12.4.3 Public trust and transparency activities

12.4.4 Crisis communication

13.0 Plan Development and Maintenance

13.1 DPH is responsible for the overall coordination and maintenance of the Crisis Standards of Care CONOPS with participation from healthcare system stakeholders and the DHPC member organizations.

13.2 All stakeholders should review the annex annually and submit suggested changes to DPH.

14.0 Training and Exercises

14.1 EMSPS is responsible for providing education and training on Crisis Standards of Care CONOPS to DPH employees and partner organizations.

14.2 Required training will be offered after the plan has been revised.

14.3 The Crisis Standards of Care CONOPS should be exercised at least biannually through a tabletop, functional, or full-scale exercise.

14.4 Development of an After-Action Report – To be developed.

15.0 References

1. Institute of Medicine (US). Barriers to Integrating Crisis Standards of Care Principles into International Disaster Response Plans: Workshop Summary. Washington (DC): National Academies Press (US); 2012. Available from: https://www.ncbi.nlm.nih.gov/books/NBK91501/ doi: 10.17226/13279)

2. Institute of Medicine (US) Forum on Medical and Public Health Preparedness for Catastrophic Events. Crisis Standards of Care: Summary of a Workshop Series. Washington (DC): National Academies Press (US); 2010. B, Summary of Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report. Available from: https://www.ncbi.nlm.nih.gov/books/NBK32748/
3. Institute of Medicine (US) Committee on Guidance for Establishing Standards of Care for Use in Disaster Situations; Altevogt BM, Stroud C, Hanson SL, et al., editors. Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report. Washington (DC): National Academies Press (US); 2009. LEGAL ISSUES IN EMERGENCIES. Available from: https://www.ncbi.nlm.nih.gov/books/NBK219960/
4. Committee on Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations; Institute of Medicine. Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response. Washington (DC): National Academies Press (US); 2012 Mar 21. 3, Legal Issues in Emergencies. Available from: https://www.ncbi.nlm.nih.gov/books/NBK201075/
5. IOM (Institute of Medicine). 2009. Guidance for establishing crisis standards of care for use in disaster situations: A letter report. Washington, DC: The National Academies Press.
6. DPH Crisis Standards of Care
7. Institute of Medicine (US) Committee on Guidance for Establishing Standards of Care for Use in Disaster Situations; Altevogt BM, Stroud C, Hanson SL, et al., editors. Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report. Washington (DC): National Academies Press (US); 2009. LEGAL ISSUES IN EMERGENCIES. Available from: https://www.ncbi.nlm.nih.gov/books/NBK219960/
8. Razack, G. & Kavya, T. & Manjunath, B. & Ali, Mohammed & Avinash, K. & Harindranath, H. (2019). Utility of sequential organ failure assessment score in predicting outcome for patients with peritoneal sepsis. International Surgery Journal. 6. 696. 10.18203/2349-2902.isj20190817.
9. Popli, D.V., & Kumar, D.A. (2018). Validation of PRISM III (Pediatric Risk of Mortality) Scoring System in Predicting Risk of Mortality in a Pediatric Intensive Care Unit.
10. Institute of Medicine. 2014. *Nationwide Response Issues After an Improvised Nuclear Device Attack: Medical and Public Health Considerations for Neighboring Jurisdictions: Workshop Summary.* Washington, DC: The National Academies Press. https://doi.org/10.17226/18347
11. Crisis Standards of Care; A Systems Framework for Catastrophic Disaster Response (Institute of Medicine)
12. Delaware Medical Surge Annex
13. Delaware Public Health and Medical Ethics Advisory Group Standard Operating Guideline
14. Minnesota Crisis Standards of Care Framework