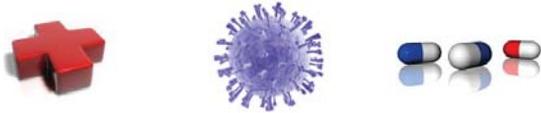


Arizona Department of Health Services

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Arizona Crisis Standards of Care (CSC) Clinical Workgroup Overview



1

Acknowledgements

- Thank you!
 - To all members of the State of Arizona Clinical Workgroup for Crisis Standards of Care, for your
 - Time
 - Dedication
 - Service
 - Expertise
- Resource Materials
 - State of Arizona Crisis Standards of Care Web Page
 - <http://1.usa.gov/148dOtS>



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URL is case sensitive



2

Clinical Workgroup: Goals

- Identify progressive triggers that lead to implementing CSC when normal capacity of healthcare system is exceeded.
- Develop triage protocols to aid healthcare providers in consistent, competent decision-making across continuum of care.
- Examine need for alteration to professional scopes of practice and licensing restrictions. Address training needs and mechanisms to achieve safe healthcare practices.
- Provide guidance for management of scarce resources in coordination with state healthcare coalitions and local medical and public health authorities based on state laws and regulations.



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3

Crisis Standards of Care:

State of Arizona Clinical Workgroup Objectives

- Recommend **activation criteria** for crisis standards of care (CSC)
- Recommend **primary, secondary, & tertiary triage methods** for limited healthcare resources
 - Using evidence-based guidelines when possible
- Recommend **expanded scopes of practice** for healthcare professionals during CSC
- Recommend methods for reporting **status of limited space, staff, & supplies (3Ss)** at a healthcare facility during CSC



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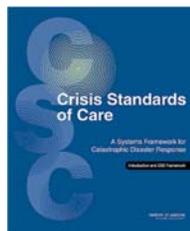


4

IOM CSC:

Catastrophic Disaster Attributes

- Most or all of community's infrastructure impacted
- Local officials unable to perform usual roles for extended period
- Most or all routine community functions immediately & simultaneously disrupted
- Surrounding communities similarly impacted
 - Therefore, no regional resources



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IOM CSC: 3 Cs

- **Conventional care**
 - Space, staff, & stuff (supplies) [3Ss] in daily practice
- **Contingency care**
 - 3Ss not used in daily practice
 - Functionally equivalent patient care
 - Patient care areas repurposed
 - Elective procedures & admissions deferred
 - Expanded staff responsibilities
 - Conserve, adapt, & substitute supplies
 - Safely re-use select supplies
- **Crisis care**
 - Adaptive 3Ss not used in daily practice
 - Best possible care in difficult circumstances with limited resources



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6

Clinical Workgroup Recommendation for State of Arizona CSC triggers:

- 1) A State Declaration of Emergency plus
- 2) Any one of the following:
 - Resources for healthcare facilities & agencies
 - Unavailable
 - Undeliverable
 - Multiple healthcare facilities & agencies similarly impacted
 - Patient transfer not possible
 - \geq Short-term
 - Limited access to medical countermeasures
 - Supply caches already distributed
 - No short-term resupply



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Clinical Workgroup Recommends a healthcare facility must meet at least 1 of the 3 following CSC triggers to decide to trigger CSC at that facility:

- **Space**
 - Healthcare facilities
 - Need non-patient care areas for patient care
 - Damaged
 - Unsafe
- **Staff**
 - Trained staff unavailable or unable to care for volume of patients at healthcare facility
- **Stuff**
 - Critical items lacking at healthcare facility
 - Possible reallocation of life-sustaining resources at facility



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IOM CSC: Triage

- **Primary triage**
 - 1st assessment
 - Prior to medical interventions
 - **EMS**
 - START, etc.
 - Alternate Triage, Treatment, & Transport Guidelines for Pandemic Influenza
 - http://www.azdhs.gov/diro/admin_rules/guidancedocs/GD-PANFLU.pdf
 - **Hospital Emergency Department (ED)**
 - Level 1-5, normally
 - START, etc. in disaster



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IOM 2012: CSC Triage

- **Secondary triage**
 - After 1st assessment & diagnostics
 - After *initial* medical interventions
 - **Hospital surgeons, etc.**
 - Determine priority for OR or CT
- **Tertiary triage**
 - After *definitive* diagnostics
 - After *significant* medical interventions
 - **Hospital intensivists, etc.**
 - Determine priority for ICU



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START vs. Other Triage Methods

- *Annals of Emergency Medicine*
 - June 2013;61(6):668-676.
 - National Trauma Data Bank
 - N= 530,695
 - Adult, pediatric, & geriatric patients
 - Primary endpoint = hospital mortality
 - No system clearly clinically superior
 - Study unlikely to change practice



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Systematic Review:

Managing & Allocating Scarce Resources During MCE

- *Annals of Emergency Medicine*
 - June 2013;61(6):677-689.
 - Systematic review analyzed 74 studies
 - Points of dispensing (PODs) work for biological incidents
 - No clearly, clinically superior primary (field) triage method
 - Insufficient number of studies for conclusions on secondary triage, etc.



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CSC Clinical Workgroup Recommends this Prehospital Primary Triage

- Either
 - START for adults or JumpSTART® for children
 - Alternate Triage, Treatment, & Transport Guidelines for Pandemic Influenza
 - With caveat that CSC Clinical Workgroup would like option to modify its recommendation as additional evidence-based guidance is published regarding other primary triage methods, such as SALT, etc.

CSC Clinical Workgroup Recommends this Hospital/Healthcare Facility Primary Triage

- Either
 - START for adults or JumpSTART® for children
 - Emergency department triage levels 1 - 5
 - With caveat that CSC Clinical Workgroup would like option to modify its recommendation as additional evidence-based guidance is published regarding other primary triage methods, such as SALT, etc.

CSC Clinical Workgroup Recommends this Hospital/Healthcare Facility Secondary Triage

- Facility-designated physician or surgeon does secondary triage (after initial assessment, diagnostics, & medical interventions) to determine patient's priority for OR (procedures) or CT (imaging), etc.
- With caveat that CSC Clinical Workgroup would like option to modify its recommendation as additional evidence-based guidance is published regarding secondary triage methods

Tertiary Triage

RESEARCH

Development of a triage protocol for critical care during an influenza pandemic

Michael D. Christian, Laura Hawryluck, Randy S. Wax, Tim Cook, Neil M. Lazar, Margaret S. Herridge, Matthew P. Muller, Douglas R. Gowans, Wendy Fortier, Frederick M. Burkle, Jr.

See related article page 1393

ABSTRACT

Background: The recent outbreaks of avian influenza (H5N1) have placed a renewed emphasis on preparing for an influenza pandemic in humans. Of particular concern in this planning is the allocation of resources, such as ventilators and antiviral medications, which will likely become scarce during a pandemic.

Methods: We applied a collaborative process using best evidence, expert panels, stakeholder consultations and ethical principles to develop a triage protocol for prioritizing access to critical care resources, including mechanical ventilation, during a pandemic.

Results: The triage protocol uses the Sequential Organ Failure Assessment score and has 4 main components: inclusion criteria, exclusion criteria, minimum qualifications for survival and a prioritization tool.

Interpretation: This protocol is intended to provide guidance for making triage decisions during the initial days to weeks of an influenza pandemic; if the critical care system becomes overwhelmed. Although we designed this protocol for use during an influenza pandemic, the triage protocol would apply to patients both with and without influenza, since all patients must share a single pool of critical care resources.

mand for intensive care unit (ICU) resources, solely for patients with influenza, would peak at 27% of current ICU bed capacity and 11% of the ventilator capacity. These figures do not take into account the current usage rate of critical care for patients without influenza, which is nearly at 100%. Nor does this model factor in the availability of human resources. Surge response strategies" (e.g., scaling back elective procedures, opening additional critical care areas and implementing the use of "mass critical care"^{11,12}) will partially mitigate the sudden demand for medical care during an influenza pandemic; however, these strategies will be inadequate to fully address the demands on the health care system.

When resource scarcities occur, the tenets of biomedical ethics and international law dictate that triage protocols be used to guide resource allocation.^{13,14} International law requires a triage plan that will equitably provide every person the "opportunity" to survive. However, such a law does not guarantee either treatment or survival.¹⁵ We have developed this triage protocol in an effort to ensure the equitable and efficient use of critical care resources if scarcities occur during an influenza pandemic.

Methods

In December 2004, at the request of the steering committee of the Ontario Health Plan for an Influenza Pandemic (OHP-IP), a group of clinicians with expertise in critical care, in-

Tertiary Triage for Critical Care during Influenza Pandemic

CMAJ 2006; 175(11):1377-1381

- **Inclusion criteria**
 - **Requires ventilator**
 - Refractory hypoxemia
 - SpO2 < 90% on nonrebreather reservoir mask or FIO2 > 0.85
 - Respiratory acidosis (pH < 7.2)
 - Clinically impending respiratory failure
 - Unable to protect or maintain airway or
 - **Hypotension** (SBP < 90 mmHg or relative hypotension) with **clinical evidence of shock** (altered LOC, decreased urine output, etc.)
 - Refractory to volume resuscitation
 - Requires vasopressor or inotrope

Sequential Organ Failure Assessment (SOFA)

Resusc. Component	Variable	0	1	2	3	4
A & B	PaO2/FiO2 (mmHg)	>400	<400	<300	<200	<100
C	Hypotension	Adults: None	Adults: MABP <70 mmHg	Dop <5	Dop >5, Epi <0.1, Norepi <0.1	Dop >15, Epi >0.1, Norepi >0.1
		Children: >70 + (2 X age in years)	Children: <70 + (2 X age in years)			
C	Platelets (x 10 ⁶ /L)	>150	<150	<100	<50	<20
D	GCS	15	13-14	10-12	6-9	<6
E	Creatinine (mg/dL)	<1.2	1.2-1.9	2.0-3.4	3.5-4.9	>5
E	Bilirubin (mg/dL)	<1.2	1.2-1.9	2.0-5.9	6.0-11.9	>12

CSC Clinical Workgroup recommends a hospital/healthcare facility perform tertiary triage for initial ICU admission based on the inclusion criteria & SOFA scores detailed in *CMAJ* 2006; 175(11):1377-1381 & summarized by the CSC Clinical Workgroup in this table, without any exclusion criteria from this article.

SOFA Triage Color Code	Criteria	Action or Priority
Red	SOFA score \leq 7 or single organ failure	Highest priority for ICU admission
Yellow	SOFA score 8 through 11	Intermediate priority for ICU admission
Blue	SOFA score $>$ 11	Lowest priority for ICU admission Palliative care as needed
Green	No significant organ failure	No need for ICU admission



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Scope of Practice

- Definition

- Extent of licensed healthcare professional’s ability to provide services consistent with their

- Competence
- License
- Certification
- Privileges

Source: IOM, Crisis Standards of Care, 1-41 & 7-4



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Scopes of Practice

- Dentists
- EMTs
- Nurses
 - NA, LPN, RN
 - APN, CNS, NP
 - RNFA, Nurse Anesthetist
- Pharmacists
 - Should become BCLS & ACLS certified
- Physicians
- Physician’s Assistants
- Psychologists



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Expanded Scopes of Practice

- Require
 - Training
 - Pre-crisis foundational/fundamental training
 - Pre-crisis sustainment training
 - Just-in-time training during crisis
 - Competence
 - License
 - Privileges
 - Medical direction



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Scopes of Practice

- Healthcare providers should practice in interprofessional teams, practicing to the top of their licenses.
 - Thomas R. Frieden, MD, MPH
 - Head of the U.S. Centers for Disease Control and Prevention (CDC)



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Colorado Legislation:

Emergency Medical & Trauma Services Act

- Allows physicians assistants (PAs) & EMTs to practice under the supervision of any licensed Colorado physician
- Allows for out-of-state physicians & nurses with licenses in good standing & Colorado physicians & nurses with inactive, unrestricted Colorado licenses to
 - Practice under the supervision of a licensed Colorado physician or nurse



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CSC Clinical Workgroup Recommends

- State of Arizona should adopt standards similar to Colorado



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Arizona Board of Nursing

- Governs all nursing practice
 - Nursing practice legislated & reflected in rules & regulations
- Issues advisory opinions for extended practice
 - Adopted by Arizona Board of Nursing (ABN), interpreting what the law requires
 - While not law, it is more than a recommendation.
 - Official opinion of ABN regarding practice of nursing relating to a specific standard of care
 - ARS 32-1606 (A) (2)



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CSC Clinical Workgroup Recommends

- Dr. Walter or designee meet with Arizona Board of Nursing (ABN) CEO & Board
 - To educate them regarding CSC
 - Emphasize ABN importance in enabling expanded scope of nursing practice during CSC



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CSC Clinical Workgroup Recommends

- Supporting statewide training prior to a crisis
 - Pre-crisis foundational/fundamental training
 - Pre-crisis sustainment training
 - Just-in-time training during crisis
- Training MRCs, CERTs, & CERT-like groups in
 - Self-aid & buddy care
 - Based on military model



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During CSC, CSC Clinical Workgroup Recommends

- EMTS & PAs may be supervised by a resident beyond their 1st year of residency (internship) in that resident's healthcare facility
- EMTS & PAs may be supervised by any other fully-licensed physician to meet emergency needs during CSC



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During CSC, Clinical Workgroup Recommends

- Residents beyond their 1st year of residency (internship) may function to the best of their ability in that resident's healthcare facility
- Licensed Arizona RNs who have met the requirements, may perform procedures defined in Arizona Board of Nursing Advisory Opinions at any facility



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During CSC,

Clinical Workgroup Recommends

- A licensed physician beyond their 1st year of training (intern) is not constrained to practice in their assigned facility, but, with advanced communication regarding specific needs, may go to another facility and practice under the supervision of a physician from the receiving facility.



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During CSC,

Clinical Workgroup Recommends

- Allowing any out-of-state licensed or certified healthcare professional, in good standing, to practice like a licensed Arizona professional regardless whether the professional is licensed in a non-compact state



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During CSC,

Clinical Workgroup Recommends

- Allowing DOD healthcare professionals to use all their competencies & privileges attained through DOD training to exercise their documented skills to assist with healthcare needs of community
 - Under supervision of Arizona licensed physician



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During CSC,

Clinical Workgroup Recommends

- Allowing federal healthcare professionals to use all their competencies & privileges to exercise their documented skills to assist with healthcare needs of community under supervision of Arizona licensed physician
 - Federal government employees practicing healthcare
 - VA
 - Indian Health Services
 - Military Health Services, etc.



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Assess & Report Status of Limited Space, Staff, & Supplies (3Ss) at Healthcare Facility, During CSC

- **Space**
 - Hospitals
 - Intensive care units (ICUs)
 - PACUs
 - Surgery Centers
 - PACUs
 - ECFs
 - Find space with HAVBED Poll
- **Staff**
 - Medical transportation
 - Medications
 - Airway & breathing
 - Oxygen & oxygen delivery systems
 - Ventilators
 - Extracorporeal membrane oxygenation (ECMO)
 - Cardiovascular
 - Vascular access devices
 - IV fluids
 - Blood products
 - Elimination
 - Renal replacement therapy
 - Wound/burn care supplies
 - Surgical equipment
 - Generators, etc.



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Methods for Reporting Status of Limited Space, Staff, & Staff (3Ss) at Healthcare Facilities, During CSC

- Notify County
 - Health Department
 - Emergency Management
- EMResource
 - Proprietary tool used by ADHS
 - HAVBED (Have Available Bed in Emergencies & Disasters)
 - Federal bed poles & situational assessments, e.g., H1N1
- ADHS Division of Licensing Services
 - Waiver requests
- Arizona Burn Disaster Network Telemedicine Program
- Poison Control Centers
 - 1-800-222-1222
- HAN
- Arizona Telemedicine Network



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CSC Clinical Workgroup Recommends

- Developing strategies & implementing interoperable, redundant modes of communication among all licensed healthcare facilities across the continuum of care
 - For each region
 - Implement & test prior to CSC



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azdhs.gov

Special Resources for Space, Staff, & Stuff (3Ss) for CSC

- EMS
- Trauma Centers
- Arizona Burn Center
- Pediatric Hospitals
- Arizona Infectious Disease Referral Centers
- Radiation Injury Treatment Network
- Specialty Hospitals
- Surgery Centers
- Poison control centers
- Clinics
- Mental health agencies
- Mental Health Facilities
- Dialysis facilities
- Long-term care facilities
- Home healthcare agencies
- Hospice
- Public health departments
- Dept. of Corrections (DOC)



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Questions & Suggestions



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