CHEST

Triage

Care of the Critically Ill and Injured During Pandemics and Disasters: CHEST Consensus Statement

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BACKGROUND: Pandemics and disasters can result in large numbers of critically ill or injured patients who may overwhelm available resources despite implementing surge-response strategies. If this occurs, critical care triage, which includes both prioritizing patients for care and rationing scarce resources, will be required. The suggestions in this chapter are important for all who are involved in large-scale pandemics or disasters with multiple critically ill or injured patients, including front-line clinicians, hospital administrators, and public health or government officials.

METHODS: The Triage topic panel reviewed previous task force suggestions and the literature to identify 17 key questions for which specific literature searches were then conducted to identify studies upon which evidence-based recommendations could be made. No studies of sufficient quality were identified. Therefore, the panel developed expert opinion-based suggestions using a modified Delphi process. Suggestions from the previous task force that were not being updated were also included for validation by the expert panel.

RESULTS: The suggestions from the task force outline the key principles upon which critical care triage should be based as well as a path for the development of the plans, processes, and infrastructure required. This article provides 11 suggestions regarding the principles upon which critical care triage should be based and policies to guide critical care triage.

CONCLUSIONS: Ethical and efficient critical care triage is a complex process that requires significant planning and preparation. At present, the prognostic tools required to produce an effective decision support system (triage protocol) as well as the infrastructure, processes, legal protections, and training are largely lacking in most jurisdictions. Therefore, critical care triage should be a last resort after mass critical care surge strategies.

CHEST 2014; 146(4_Suppl):e61S-e74S

ABBREVIATIONS: CDSS = clinical decision support system; IMS = Incident Management System; SOFA = Sequential Organ Failure Assessment

Revision accepted May 1, 2014; published Online First August 21, 2014.

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FUNDING/SUPPORT: This publication was supported by the Cooperative Agreement Number 1U90TP00591-01 from the Centers of Disease Control and Prevention, and through a research sub award agreement through the Department of Health and Human Services [Grant 1 - HFPEP070013-01-00] from the Office of Preparedness of Emergency Operations. In addition, this publication was supported by a grant from the University of California–Davis.

Summary of Suggestions

1. In the event of an incident with mass critical care casualties, we suggest all hospitals within a defined geographic/administrative region (eg, state), health authority, or health-care coalition should implement a uniform triage process and cooperate when critical care resources become scarce.

2. We suggest critical care only be rationed when resources have, or will shortly be, overwhelmed despite all efforts at augmentation and a regional-level authority that holds the legal authority and adequate situational awareness has declared an emergency and activated its mass critical care plan.

3. We suggest health-care systems provide oversight for any triage decisions made under their authority via activation of a mass critical care plan to ensure they comply with the prescribed process and include appropriate documentation.

4. We suggest health-care systems that have instituted a triage policy have a central process to update the triage protocol/system so that information that becomes available during an event informs the process in order to promote the most effective allocation of resources.

5. We suggest health-care systems establish in advance, a formal legal and systematic structure for triage in order to facilitate effective implementation of triage in the event of an overwhelming disaster.

6. We suggest health-care systems that have instituted a triage policy triage patients based on improved incremental survival rather than on a first-come, first-served basis when a substantial incremental survival difference favors the allocation of resources to another patient.

7. Triage officers:

7a. We suggest health-care systems that have instituted a triage policy have clinicians with critical care triage training function as triage officers (tertiary triage) to provide optimum allocation of resources.

7b. We suggest triage officers should have situational awareness at both a regional level and institutional level.

7c. We suggest in trauma or burn disasters, triage be carried out by triage officers who are senior surgeons/physicians with experience in trauma, burns, or critical care and experience in care of the age-group of the patient being triaged.

7d. We suggest in environments where triage is not usual, individual triage officers or teams consisting of a senior intensive care physician and an acute care physician be designated to make mass critical care triage decisions in accordance with previously prepared, publicly vetted, and widely disseminated guidelines.

7e. We suggest in limited resource settings in which there is a limited need for expansion of critical care resources, a continuation of well-established systems is appropriate.

8. We suggest triage protocols (clinical decision support systems), rather than clinical judgment alone, be used in triage whenever possible.

9. We suggest in health-care systems that have instituted a triage policy, technology such as baseline ultrasound, oxygen saturation as measured by pulse oximetry, mobile phone/Internet, and telemedicine be leveraged in triage where appropriate and available to augment clinical assessment in an effort to improve incremental survival and efficiency of resource allocation.

10. We suggest triage decision processes, whenever possible, provide for an appeals mechanism in case of deviation from an approved process (which may be a prospective or retrospective review) or a clinician request for reevaluation in light of novel or updated clinical information (prospective).

11. Triage process:

11a. We suggest tertiary-care triage protocols for use during a disaster that overwhelms or threatens to

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COI grids reflecting the conflicts of interest that were current as of the date of the conference and voting are posted in the online supplementary materials.

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DOI: 10.1378/chest.14-0736