



Commentary

Diminishing disparities in U.S. crisis standards of care: Medical and legal challenges

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Despite a decade of planning and development of crisis standards of care (CSC) in the U.S. [1], real-time experiences during the COVID-19 pandemic and other disasters have highlighted shortcomings involving potentially disparate outcomes among patients across racial, ethnic, socioeconomic, and other groups. Diverse causes of health inequities underlie critical distinctions in medico-legal approaches to allocating scarce resources. What is medically-warranted to save patients' lives must be balanced against anti-discrimination laws. In this Commentary we examine medical and legal challenges implicated in real-time allocations of scarce resources to promote public health, offering a unified approach to diminish disparate impacts among patients.

1. Medical challenges in CSC allocations

CSC planning and implementation sustain evidence-based decision making to allocate scarce medical resources. Many CSC plans use prognostic decision support tools such as the sequential organ failure assessment (SOFA) score to prioritize life-saving treatments. In real-time applications SOFA has proven to be largely unhelpful [2] and potentially discriminatory. Higher prevalence of chronic diseases (e.g., renal insufficiency) among Black patients can inappropriately increase their SOFA scores [3]. Enhancement of data science methodology and improved understanding of diagnosis-specific prognosis are needed to equitably allocate resources based on predictive physiologic and epidemiologic inputs [4].

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Absent better systems, medical resources should be allocated in the context of known disparities (see Fig. 1). First, additional medical resources and infrastructure investments must support communities at greatest risk from destabilizing forces of disease and disaster. When metadata are lacking, resource allocation should be apportioned according to the likelihood of benefit to at-risk communities, not just individuals. Decisions regarding interventions benefitting populations in a given area (e.g., providing outpatient care, ensuring access to testing) should incorporate considerations of need. They may be based on indices such as the Area Deprivation Index (ADI) [5], where most benefits accrue to those in at-risk areas. Collateral benefits to privileged residents co-residing in the same areas still offer community advantages.

However, allocations of life-saving and other treatment resources at the bedside should be based on "individualized assessments of each patient" using the best available medical evidence concerning likelihood of death prior to, or imminently after, hospital discharge for the patient's diagnosis [6]. There is no medical justification for applications of "categorical exclusion criteria" based on specific scores or other factors like disability, age, quality of life, or long-term life expectancy [5]. CSC systems advocating for considering specific social groups (e.g., ethnicity, ADI) or relative age (e.g., prioritizing younger patients) are not making medical decisions, but rather expressing social priorities that require advance community assent and legal support.

2. Legal aspects of discrimination

Blanket utilization of exclusion criteria may also violate U.S. legal protections against unwarranted discrimination, implicating potential liability for medical decision-makers. Even during declared emergencies, providers and entities must comply with federal anti-discrimination laws enforced by the U.S. Department of Health and Human Services (HHS) Office for Civil Rights (OCR). Collectively, these laws prohibit unjustified discrimination based on race, color, national origin, disability, age, sex, and exercise of conscience/religion in HHS-funded or administered programs [7]. Patently discriminatory language is easily identified and eliminated from CSC plans: in April

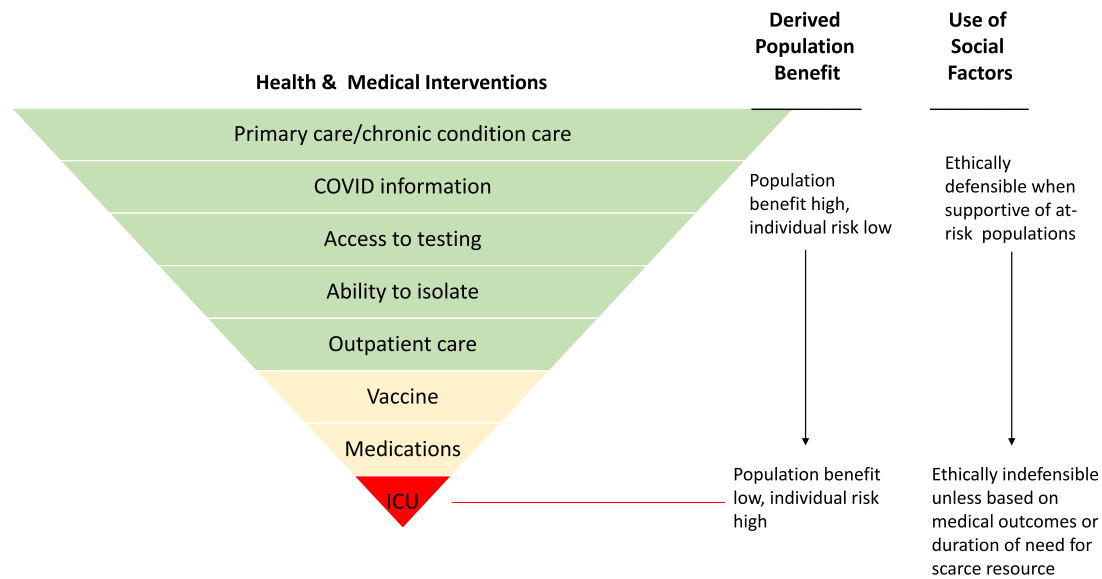


Fig. 1. Access to resources across the COVID-19 response spectrum.

2020, for example, HHS/OCR deemed that Alabama's CSC plan criteria denying ventilators to individuals with "profound mental retardation" constituted disability discrimination [8].

Harder cases arise from CSC practices incorporating criteria that do not openly discriminate (e.g., SOFA scores), but contribute to disparate patient outcomes. Supporting allocation decisions in crisis while avoiding unlawful discrimination is precarious, particularly under strict legal interpretations. HHS/OCR guidance issued during the pandemic prohibits categorical use of age in CSC plans and implementation [9]. Rather, age should be considered in an individualized fashion and only when it is a clear and independent risk factor for poor outcomes [10]. Determining what is legally permissible or prohibited during crisis can severely complicate medically-justified allocation decisions.

3. Medico-legal vision for diminishing CSC disparities

Implementing CSC entails a spectrum of decisions within fluid circumstances of each emergency defined by severe shortages of essential resources. Making medical decisions impacting patients' lives in exigencies is never easy. Standard use of criteria across at-risk populations and at the bedside may help avoid *ad hoc* decision-making, but cannot be a proxy for discrimination or medically-unsound outcomes. A unified vision for diminishing health inequalities includes the (1) rejection of specious, categorical criteria on unlawful grounds; (2) ethical apportionment of resources based on projected benefits to at-risk communities, rather than indeterminate social factors; (3) individualized determinations of life-saving resources centered on each patient's potential outcomes guided by medical evidence; and (4) real-time adjustments guided by assessments of available evidence of outcomes and mitigation of disparate impacts.

Author's contributing statement

Each of the authors, James G. Hodge, Jr., JD, LLM, Dan Hanfling, MD, John L. Hick, MD, and Jennifer L. Piatt, JD, contributed to the conceptualization, formal analysis, methodology, validation, writing – original draft, and writing – review & editing of the entire manuscript. Corresponding author James G. Hodge, Jr., JD, LLM provided overall supervision in its production, drafting, and editing.

Declaration of Competing Interest

The authors, James G. Hodge, Jr., JD, LLM, John L. Hick, MD, and Jennifer L. Piatt, JD, report no conflicts of interest. The author, Dan Hanfling, MD, reports that he serves as Co-Chair, U.S. National Academy of Medicine Forum on Medical and Public Health Preparedness.

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