COVID-19 Racial and Ethnic Inequities in Acute Care and Critical Illness Survivorship

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Amplified Inequities and Disparities in Acute Care Delivery

The COVID-19 pandemic highlights existing racial disparities in health care. Beyond an increased mortality, communities of color experience other disparities in clinical care such as limited access to specialty care physicians (4) and differences in rates of diagnostic testing (4). During hospitalization, language barriers may limit effective communication with patients from various ethnic backgrounds. In response to the pandemic, and without national guidelines, hospitals and state departments of health drafted plans for scarce resource allocation (Crisis Standards of Care [CSC]); the guiding principle for many plans is to “do the greatest good for the greatest number of people.” In many states, allocation of resources is based on probability of survival, which is often calculated with Sequential Organ Failure Assessment (SOFA) scores to prognosticate short-term survival and comorbidities to prognosticate 1- to 5-year survival. There are several problems with this approach. Comorbidities are often weighted equally with SOFA scores; however, most comorbidities considered in prognostication are complex, heterogeneous diseases, making prognostication on this basis questionable. In addition, rather than using well-validated comorbidity indices, such as the Charlson index, certain states have used unvalidated methods for classifying comorbidities. For example, in the Massachusetts CSC (5), comorbidities are classified as major conditions with death likely within 5 years and severe conditions with death likely within 1 year. Even if we could predict long-term survival with 100% accuracy, a low chance of 5-year survival should not dictate a change in resource allocation, as the number of accomplishments, amount of quality family time, and contributions to society can be significant in this time interval. Moreover, heavily weighing comorbidities may discriminate against minorities who have higher baseline rates of comorbidities because of social determinants of health. Finally, prediction models are meant to give probabilistic views of prognosis and are heavily dependent on the populations included in model development. A systematic review of 18 studies evaluated SOFA-based models to predict intensive care unit (ICU) mortality and reported area under the receiver operating curves to range from 0.61 to 0.88 (6); thus, even with good predictive models, ICU prognostication is imperfect.

As the medical community, we must consider how our utilitarian approach should be balanced by principles of distributive justice (7). Indeed, there are prominent historical and contemporary examples of the medical community’s contribution to propagating racial myths, inequalities, and unethical experiments. Through the lens of distributive justice, SOFA scores do not account for hundreds
of years of discrimination. We advocate for several mechanisms to address this inequality. First, implementing a racial or socioeconomic correction factor may help to address these issues (7). Any such modification to existing scores must be studied and evaluated for predictive performance and to ensure there is no evidence of worsening racial disparities. Predictive models for survival in ICU patients with COVID-19 are needed and should address the influence of race/ethnicity on survival. Second, priority scoring processes may lack adequate representation of affected populations and are subject to implicit bias. Training of individuals involved in the scoring process to recognize both ethical and equity values is paramount. Lastly, hospital triage and ethics committees ought to be checks and balances for each other; the group allocating resources and the group ensuring implicit biases are not driving management (i.e., ethics) should be separate. As we examine CSCs and existing racial disparities in health care, we as a medical community need to consider how we can create a more just system.

Critical Illness Survivorship Challenges: Post–Acute Care Utilization and Access

Critically ill patients are at risk of subsequent physical, psychological, and cognitive burdens—post–intensive care syndrome—and thus may have additional ongoing care needs requiring stable access to services. Severe physical weakness was noted in over half of acute respiratory distress syndrome survivors and delirium in up to 80% of mechanically ventilated patients (8). After the acute period, it is uncertain how many patients with COVID-19 will ultimately receive a tracheostomy, but a recent Boston study reported that 21.2% underwent tracheostomy (9). Data show the average patient undergoing prolonged mechanical ventilation spent 74% of all their days alive in a hospital, in a post–acute care facility, or receiving home health and had multiple transitions of care (10). This was among patients in their mid-50s who had more than a high school education with few premorbid functional limitations or medical comorbidities. Given the disproportionate burden of severe COVID-19 among minority patients who are more likely to suffer from baseline comorbidities, their post–acute care utilization may be higher and outcomes may be worse. Per patient, post–acute care is also costly and highest among patients who require long-term acute care (10). The financial burden of post–acute care may be even more harmful for socioeconomically disadvantaged patients. Access to post–acute care facilities are largely mediated by insurance payer type, and white patients are more likely to possess the necessary insurance coverage (i.e., Medicare and commercial insurances) (11). The anticipated need for possibly high-cost post–acute care utilization by patients with COVID-19, coupled with disproportionate impact among racial/ethnic minority patients who may have more coverage limitations, is concerning for their ability to recover heightening the very disparities that may have led to an increased risk for disease.

By recognizing these challenges facing racial/ethnic minority patients, providers and systems have the opportunity to mitigate health disparities. Individual pulmonologists and intensivists can recognize personal implicit bias and engage with hospital leadership to ensure collection of demographic data and build a multidisciplinary task force charged with identifying and mitigating social determinants of health. An individual health system can fortify translator services to ensure guidance is tailored and understood by patients served in the system, partner with community health centers to expand COVID-19 testing, reduce the digital divide and limitations of telehealth access by racial/ethnic minority patients, evaluate workforce diversity (both for the advancement of racial/ethnic diversity of practitioners and to assess impact of the pandemic on staff), and consider development of coordinated post–COVID-19 recovery care which racial/ethnic minority patients with post–intensive care syndrome or chronic critical illness can access.

Although individual clinicians and healthcare systems can help address inequities for patients requiring post–acute care services, we ultimately also need health policy solutions. Current expenditure is necessarily focused on the acute hospitalization, but policies for post–acute care are critical, including funding to ensure capabilities for post–acute care facilities and rehabilitation.

Though the Coronavirus Aid, Relief, and Economic Security Act protects uninsured patients from costs to a degree, and some private insurers will waive cost sharing for treatment, it remains unclear if this will be sufficient and how long-term care expenditure will be prioritized. Proposed congressional legislation (12) focuses on collecting data with race information, creation of multiagency and clinician task forces overseeing health equity in the federal response, grant funding for community-based responses to the pandemic, a relief package that provides free testing and treatment, and policy frameworks that reduce barriers to care. The success of these measures may be modified by clinician advocacy and support.

We have had the privilege to serve patients during this crisis—patients who themselves were providers, worked in public-facing occupations, had newborns they never met, or whose loved ones never got to see them. We are inspired by care teams everywhere providing high-quality patient-centered care in the acute and post–acute care settings and are encouraged by the vision that comprehensive, systematic action to reduce inequities can be integrated into our path of recovery.

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