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EDITORIAL COMMENT

Promoting Health Equity in Heart Failure Amid a Pandemic*



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The coronavirus disease-2019 (COVID-19) pandemic has had profound implications for patients with heart failure (HF). These effects are equally salient for those who have been infected by the virus and those who have had their health care delivery altered due to necessary changes in practice. Furthermore, the pandemic has placed a magnifying glass on pre-existing inequities in the US health care system, reminding us that the road ahead is long, and the participation of every entity linked to the health care system is required.

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Cohort studies of patients with COVID-19 disease have shown that cardiovascular comorbidities, including HF, are risk factors for severe infection and complications (1). Because of this, patients with HF require heightened vigilance amid the current pandemic. In this issue of *JACC: Heart Failure*, Bhatt et al. (2) confirm what most clinicians managing patients with HF have suspected: that these patients are at high risk for adverse events when afflicted with COVID-19 disease. Study investigators queried the Premier Healthcare Database (Premier, Inc. Charlotte, North Carolina) to describe characteristics and outcomes in patients with HF hospitalized for acute HF and COVID-19 infection and for other reasons. The Premier Healthcare Database contains more than 8

million annual US hospitalizations in addition to outpatient encounters, uniquely positioning the authors to report on more than 130,000 patients with HF who were hospitalized between April and September 2020.

Patients with HF who were hospitalized for COVID-19 infection were more likely to identify as Black and/or Hispanic, consistent with previous evidence of the disproportionate burden of COVID-19 infection on under-represented minorities, especially Black and Hispanic individuals. The reasons for these glaring disparities are complex and include high housing density, lower socioeconomic status, and most importantly, poor access to health care due to structural inequities in society (i.e., systemic racism). Such patients are also highly represented in the food services business and other classes of essential workers (3), further increasing their risk for infection with COVID-19.

Bhatt et al. (2) found that 24.2% of patients hospitalized with HF and COVID-19 infection died in the hospital, compared to only 2.6% of patients hospitalized with HF alone, whereas patients without a history of HF hospitalized for COVID-19 infection during the same study period had an in-hospital mortality rate of 14.2%. Smaller studies of patients with HF have found comparable in-hospital mortality rates (4). The mortality rate of nearly 1 in 4 is a staggering statistic as HF itself carries an incredibly high burden of mortality and morbidity. As a corollary, perhaps unsurprisingly, these patients also were more likely to require admission to an intensive care unit and mechanical ventilation. Older age, morbid obesity, and male sex were also associated with worse outcomes. The risk of in-hospital death was highest for those admitted earlier in the pandemic, with lower but elevated risk in subsequent months.

So how can we mitigate the risk to patients with HF during this pandemic?

In the setting of reduced in-person ambulatory care, the use of telemedicine and virtual visits has

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FIGURE 1 Problems, Solutions, and Goals for Seeking Equity in Heart Failure Care and the COVID-19 Pandemic

THE PROBLEMS	PROPOSED SOLUTIONS	THE RESULTS
<ol style="list-style-type: none"> 1. COVID-19 has disproportionately affected Black and Hispanic communities 2. Patients with heart failure who were hospitalized for COVID-19 infection were more likely to identify as Black and/or Hispanic 3. Telemedicine less likely used in women, Black patients, non-English speaking patients, those of lower incomes 	<ol style="list-style-type: none"> 1. Easily accessible testing for COVID-19 and contact tracing in highly dense communities 2. Providing spaces for isolation for families that live in overcrowded housing 3. Continued access to insurance programs 4. Expansion of telehealth and remote monitoring to disadvantaged communities 5. Equitable access to vaccines 	<ol style="list-style-type: none"> 1. Improved heart failure care for all 2. Reduced morbidity and mortality from COVID-19

COVID-19 = coronavirus disease-2019.

expanded to reduce risk to patients. Additionally, incorporation of remote monitoring and electronic implantable cardiac devices such as CardioMEMS (Abbott Laboratories, Chicago, Illinois) has provided supplemental clinical information regarding volume status and physical activity that may improve clinical decision making by expanding collection of remote data. Structured home nursing visits can perform phlebotomy and monitor vital signs and assist in education of patients and providing insight to clinicians on patient’s overall wellbeing. These strategies can help limit the overall number of health care contacts and exposure to the virus (5).

Access to these services, however, is unequal. For example, home nursing visits may not be covered for all patients; and telemedicine visits may be particularly challenging for poorer patients, older patients, and those for whom English is not their primary language. It follows then that patients who cannot be easily reached using video services, namely those at greater socioeconomic disadvantage, may need to present to emergency care or in-person clinics. Traveling to those sites often requires the use of public modes of transportation, which can increase

their risk of exposure. Conversely, as virtual care requires less time and travel and less time away from work, some patients from a lower socioeconomic status may prefer this, as long as provisions are in place to provide them with equitable virtual care. A study by Eberly et al. (6) examined telemedicine practices during the COVID-19 pandemic and found that socioeconomic status was not associated with the ability to participate in a virtual visit but was associated with whether the visit was a telephone versus a video visit. With Centers for Medicare and Medicaid Services paying equally for telephone and video visits, clinicians may need to be nimbler in their ability to perform a visit with limited technology and expand resources for communication with patients whose primary language is not English.

As the COVID-19 pandemic wages on and disproportionately ravages socioeconomically disadvantaged communities, we should focus our efforts on strategies to minimize these inequities (Figure 1). These efforts should be multi-pronged, including making testing easily accessible, facilitating contact tracing in highly dense communities, and providing spaces such as hotels to allow social isolation for

families living in overcrowded housing. More broadly, we must ensure that patients have continued access to health insurance programs despite increasing rates of unemployment. Furthermore, implementation of remote monitoring and telehealth should include our most vulnerable communities, whether this is by expansion of broadband reach, use of mobile integrated health, expansion of patient navigator services, or conventional home nurse visits to reduce unnecessary exposure. Finally, we must also guarantee that these groups have equitable access to vaccines when available.

These results should remind us to be innovative and thoughtful in our management of patients with

HF while trying to maintain equity and good health for all.

AUTHOR DISCLOSURES

The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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