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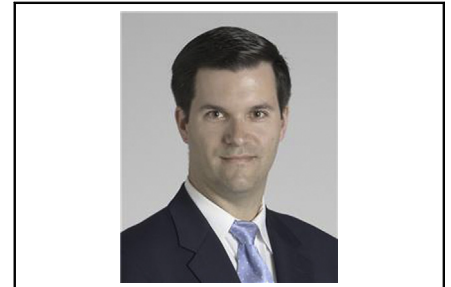
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See Article page 131.



Commentary: From the trenches: Lessons on caring for patients with heart failure during coronavirus disease 2019 (COVID-19)

Edward G. Soltesz, MD, MPH



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CENTRAL MESSAGE

Patients with heart failure represent a vulnerable population during the COVID-19 pandemic. Shared best practices among institutions can be useful in developing and implementing preparedness plans.

The coronavirus disease 2019 (COVID-19) pandemic has forced hospitals to rapidly institute crisis preparation plans to reallocate resources, ration care, and redeploy caregivers to manage critically ill patients with COVID-19. Recipients of heart transplants and left ventricular assist devices (LVADs) as well as patients with advanced end-stage heart failure represent an especially vulnerable population during this pandemic. Their unique comorbidities and resource requirements place them at increased risk of acquiring COVID-19 as well as developing severe complications from COVID-19 infection. In addition, diversion of critical resources away from this tenuous patient population might disrupt their cardiovascular care and lead to increased morbidity and mortality.

In this issue of the *Journal*, Bansal and colleagues¹ provide a very comprehensive guiding document for the management of patients with heart failure during the COVID-19 pandemic. The strategies and best practices they present were developed from their direct experience as providers at 6 medical centers located in 4 COVID-19 hotspots during the early phase of the pandemic. The authors argue that capacity management through effective triage is essential; many of their programs halted cardiac transplant and only implanted LVADs in patients classified as Interagency Registry for Mechanically Assisted Circulatory Support 1 and 2. In addition, they found cohorting strategies fundamental to protecting patients and caregivers. The authors recommend leveraging telemedicine to remotely monitor and care for patients with LVADs as well as educate newly implanted patients and their family members. Since there

is a significant regional variation in COVID-19 penetrance, the authors acknowledge that some programs might need to outsource LVAD and transplant services to other institutions. Finally, the authors stress the critical importance of transparent, multilevel communication, and collaboration among caregivers, departments, and other LVAD/transplant centers.

This expert opinion adds to the growing literature on how to best manage patients with heart failure during COVID-19.²⁻⁶ Although not an official guideline document, this coalescence of best practices from expert heart failure caregivers on the front lines of COVID-19 care will prove useful as a reference document on operationalizing crisis management for other LVAD and transplant programs. In fact, it is difficult, if not impossible, at this stage to provide formal guidelines for the management of patients with heart failure during the COVID-19 pandemic. There is tremendous variation in regional viral epidemiology as well as available resources, capacity, and preparedness of individual hospitals. Going forward, it will certainly be important to more formally evaluate these and other strategies to eventually develop evidence-based practice recommendations.

The authors are to be congratulated for their collaborative efforts to share and disseminate their best practices in this rapidly evolving crisis response. A resounding message that emerges from this as well as other similar expert opinion papers is the importance of working together for the common goal of patient care. As Henry Ford so eloquently said, “Coming together is a beginning, staying together is progress, and working together is success.”

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See Article page 131.



Commentary: A pandemic blueprint for planning your act and acting your plan

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The United States has emerged as a focal point in the coronavirus disease 2019 (COVID-19) pandemic, with more than 6.3 million cases and 190,000 deaths.¹ The aftermath against COVID-19 has not begun yet; however, there are lessons learned that should be shared to help fight with the ongoing COVID-19 pandemic and with another surge. In this issue of the *Journal*, Bansal and colleagues² bring expert opinions from their experiences at 6 US academic centers, spanning geography, size, resources, and density of infection encountered, as well as the multiple disciplines involved in the care of these complicated patients, including cardiac surgeons, cardiologists, critical care anesthesiologists, and ventricular assist device (VAD) coordinators. The best practices during crisis situations are summarized as the “4Cs”: capacity, cohort, care, and collaboration.

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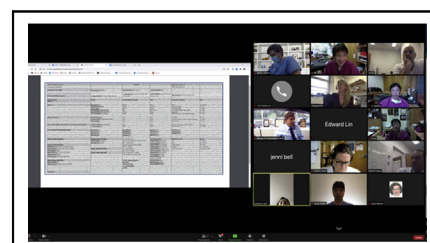
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Multidisciplinary heart transplant meeting.

CENTRAL MESSAGE

Authors from 6 US institutions offer recommendations for care of heart failure, mechanical circulatory support, and heart transplant patients in a pandemic.

We also learned that readiness is the key.³ In general, patients with advanced heart failure can be divided into 2 large groups; first, patients with heart failure managed medically or waiting for heart transplantation/left VAD implantation, and second, patients who had already received heart transplantation or left VAD. We found that these patients are at high risk for significant COVID-19 disease.⁴ In this paper, we suggested that each heart failure program needs to have a comprehensive and detailed plan to take care of both types of patients. This plan should be executed at every level of the medical team. Regular and uninterrupted communication with full transparency on the current status, data analysis, and future predication further empowers the team.⁵ As an example, an analysis at our center showed that the rate of in hospital transmission in a non-COVID-19 cardiothoracic