was promptly disseminated among the medical teams and helped reassure the safety and effectiveness of our plan. Recently, we reported our experience across New York Presbyterian Hospitals network.⁶ Again, we concluded that having a plan and acting by the plan with transparency and communication are the key. The plan, however, is to be modified and updated through constant data and situation analysis.

As the authors astutely point out, one should not risk a patient dying from heart disease to save someone dying of COVID-19—a principle we could not agree with more. Finding the balance was not easy, though. Our program was required to understand and react to the ever-changing reality. We had to transform ourselves for the care of our patients heart failure. In retrospect, the resilience of the program was tested by this pandemic. Note that Bansal and colleagues offer no uniform protocol; each program developed protocols specific to their own program and local situation. In this context, the importance of team building in non-pandemic times cannot be underestimated, and perhaps such effort is more essential than attempting to forecast the unpredictable. It requires a true integration of multidisciplinary and collaborative behavior, visionary leadership,

and fluent communications with the governance system at multiple levels.

Many of the changes/innovations introduced during this pandemic are here to stay; telehealth, remote patient monitoring, video meetings, and more. With proper preparation, planning, and leadership, we would be better prepared next time.

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Commentary: Moving forward, looking back: Lessons from coronavirus disease 2019 (COVID-19) for preparedness in advanced heart failure programs

Scott C. Silvestry, MD

The coronavirus disease 2019 (COVID-19) pandemic impacted medical care profoundly, through the eclipsing

Scott C. Silvestry, MD

CENTRAL MESSAGE

MCS and heart transplant programs adapted strategically and uniquely in a variety of ways to the impact of COVID-19.

From the AdventHealth Transplant Institute, AdventHealth Orlando, Orlando, Fla.

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Address for reprints: Scott C. Silvestry, MD, AdventHealth Transplant Institute, AdventHealth Orlando, Orlando, FL 32804 (E-mail: Scott.Silvestry.MD@AdventHealth.com).

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resource needs of critically ill surgery patients and through the necessary changes in medical care resulting from social distancing and limits on in-person care.

Nowhere were these changes more influential than in highly specialized advanced heart failure/mechanical circulatory support and transplant programs and their patients. As Bansal and colleagues¹ detail, programs rapidly reconfigured and adapted to the challenges of providing medical care to patients during COVID-19. Contributing authors from 6 programs in 4 infection hotspots compile their strategies for overcoming the challenges of care to assist other institutions with current and future preparedness. These strategies are robust offering a combination of institutional relational coordination, strategic decision making, and the deployment of innovative and best practices for left ventricular assist device (LVAD) and transplant care—often through novel means, across physical miles on a scale not performed previously.

To plan for ongoing care or implement plans to transition care, the authors outline strategies to address both common challenges and those unique to LVAD and heart transplant programs and patients. Capacity and triage remain overarching priorities, but the strategies outlined in this report also had to address aspects of specialty care at a level of detail down to securing extended medicine supply and dressing material to collecting patient-level data serially in place of in-person evaluations and care. These programs worked to carve out the unique needs of mechanical circulatory support and transplant patients infected with COVID-19 of varying severity of illness. At times, teams balanced members need to contribute to the intensive care unit care of surging COVID-19 populations and duty to care for their specialty patient population. In a setting of pandemic resource constraint, the authors stress that ongoing care must be maintained to avoid preventable emergency care and additional resource use.

This report details how authors pivoted their programs immediately. Protocols were adapted and the programs pushed innovation and change forward quickly. The

primary tool utilized in these innovations? Connectedness. Whereas most programs use smartphones to aid in patient care,^{2,3} the increased remoteness of care required a constant feed of pictures, weights, and vital signs in addition to new telemedicine visits. The authors' programs rapidly implemented pending remote parameter monitoring, applied for home international normalized ratio monitoring, and pared biopsy schedules down to the minimum necessary. Safety was maintained by connectedness, both electronic and personal. Teams continued to provide LVAD implantation and heart transplantation depending on capacity, safety, and ongoing need for select populations in their regions. On a team level, the authors again highlight connectedness to unify remotely working team members, address ongoing innovation, treatment advances, and to disseminate information to patients, families, and colleagues.

Although the influence of COVID-19 was unprecedented in our time, its challenges and solutions will no doubt shape our immediate future. Using innovation and tools to maintain connection and strategies aimed at decreasing in hospital resource use, these programs have highlighted not only the path forward during pandemic times, but a leaner, smarter path for the care of our advanced heart failure, LVAD, and transplant patients at all times.

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