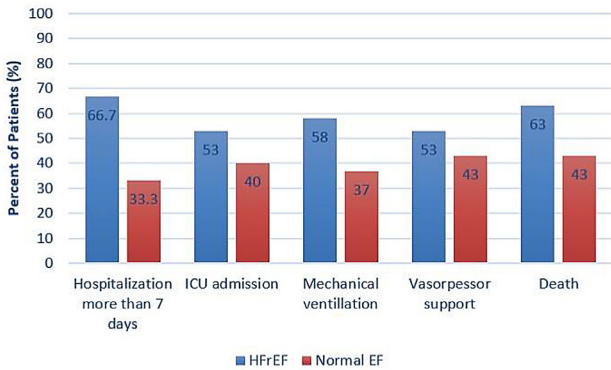




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

signs and symptoms of clinical heart failure that prompted imaging with TTE and found to have HFrEF (EF  $\leq 40\%$ ). Age and gender matched patients with COVID-19 with normal ejection fraction and no wall motion abnormalities formed the control arm. **Results:** We identified 171 patients with TTE done between 3/22-4/24. Of these, 30 patients developed new onset heart failure during their hospitalization with an EF  $\leq 40\%$ . Two thirds of the patients with HFrEF (66.7%) required hospitalization more than 7 days versus 33.3% in patients with normal EF. More than half of the heart failure patient cohort (53%) required ICU level of care compared to 40% in patients with normal EF. During their stay in the ICU, 58% of the patients with EF  $< 40\%$  required intubation and mechanical ventilation as opposed to 37% in patients with normal EF, and 53% required vasopressor support to maintain adequate mean arterial pressures (MAPs)  $> 65$ , compared to 43% in the group with EF  $> 60\%$ . In-hospital mortality was 63% in the HFrEF group and 43% in patients with normal EF. **Conclusion:** Patients with COVID-19 who developed HFrEF during hospitalization had worse outcomes and a higher mortality when compared to COVID-19 patients with normal EF.



199

Implementation of a Telemedicine Clinic in the Covid-19 Era

Suzan Khalil, Melissa A. Moore, David J. Cho, Ali Nsair, Sandra J. Rodriguez, Megan Kamath; UCLA, Los Angeles, CA

**Background:** COVID-19 has drastically altered the delivery of medical care in the United States and beyond. Healthcare providers have been forced to rapidly innovate to mitigate the spread of infection and maintain social distancing. Telemedicine allows for the continuation of vital patient care while decreasing the risk of virus transmission. **Objective:** We conducted a survey to assess the satisfaction of both patients and providers with rapid implementation of an electronic medical record (EMR) based video visit system. **Methods:** A survey hyperlink was distributed through EMR messages to patients and emails to providers. **Results:** 74/376 patients (19.7%) and 8/10 (80%) providers completed the survey. The population consisted of advanced heart failure (n = 37, 50%), mechanical circulatory support (n = 4, 5.4%), transplant (n = 19, 25.7%) and general cardiology (n = 14, 18.9%) patients and their respective providers. The patient survey consisted of validated survey questions to assess patient and provider perceptions. Patients were 69.7% male with a mean age of 65. 74% of the patients consider themselves early adopters or innovators with new technology. 85% of surveyed patients believed that telemedicine is simple to use and easy to learn. 77% felt the telemedicine system interface was of good quality, 88% believed it allows for good interaction with the provider, 95% believed it protects both patients and providers by limiting exposure to COVID-19, 83% were overall satisfied with this telemedicine system and would use it again. 75% of providers reported no telemedicine experience prior to COVID-19. Notably, 100% of physicians consider themselves early adopters or innovators with new technology. 87.5% deemed their patients highly complex. 100% of providers felt that telemedicine is useful for their job and 87.5% felt that their job would be difficult to perform without it, 27.5% believed video visits save and reduce time spent on unproductive activities, and allow accomplishing more work and tasks more quickly, 87.5% believe the system is easy to use overall, 100% agree it enhances providers' and patients' safety during COVID-19. **Conclusion:** Patients reported high level of satisfaction with video visits and interaction with their providers as well as with the ease of use and convenience of telemedicine appointments. Providers found the telemedicine system easy to use and useful for their job, but many believe there is room for improvement with respect to time saving measures.

200

Changing Trends of Mean Pulmonary Artery Pressure Reading During Covid-19 Pandemic Stay at Home Orders

Devesh Rai, Muhammad Waqas Tahir, Medhat Chowdhury, Adnan Kharsa, Satish Pandela, Irfan Saddique, Scott Feitell; Rochester General Hospital, Rochester, NY

**Introduction:** Heart failure patients with difficult to manage volume status and recurrent heart failure exacerbation benefit from CardioMems™ placement. This

helps in remote monitoring of pulmonary artery (PA) pressure and diuretic dosing can be changed on the basis of these readings preventing hospitalizations. During the COVID-19 pandemic, a stay-at-home order was issued by the state government, which may have led to heart failure deterioration secondary to poor follow up and change in dietary habits. **Hypothesis:** We aim to evaluate changes in the mean PA pressure during stay-at-home order during COVID-19 pandemic as patients are not seen in clinic and there are presumed changes in dietary habits. **Methods:** We identified 26 patients with a history of CardioMems™ implant using our heart failure clinic database. We extracted their daily available PA pressure reading before the COVID-19 pandemic and during pandemic. **Results:** The characteristics of the patients are described in Table 1. 26 cases with were identified with sufficient CardioMems™ readings. Average age was 69.7 years with 38.5% females. There were 54% patients with systolic heart failure. Number of COVID-19 cases rose to almost 700 in 1 month. With regression analysis, we observed a trend towards increase in the mean PA pressure readings during the pandemic ( $R^2 = 0.09$ , P-value  $< 0.05$ ). The patients also developed symptoms of heart failure exacerbation and were managed remotely with the changes in their medications (57% of cases). The trend of the change in the mean PA pressure readings during pandemic is presumably attributed to decreased activity and dietary changes as patients are staying at home and possibly consuming more canned food. However, none of these patients were hospitalized for heart failure exacerbation suggesting patients being scared of coming to the hospital because of the risk of transmission of COVID-19. **Conclusions:** There is an increase in the mean PA pressure during pandemic compared to that of before pandemic likely because of lack of proper food resources and restriction on exercise activity.

Variable	Patient Characteristics	N(%)
Age (years)		69.7 $\pm$ 8.83
Female		10(38.5%)
HFrEF		14(54.0%)
HFpEF		12(46.0%)
Mean EF(HFrEF)		30%
EF(HFpEF)		58.75%
ICD		13(50.0%)
CRT		2(7.7%)
ICM		13(50.0%)
Atrial Fibrillation		13(50.0%)
Aspirin		21(80.8%)
Beta Blockers		22(84.6%)
ACEi/ARB/ARNI		16(61.5%)
Statin		18(69.2%)
mineralocorticoid receptor antagonist		10(38.5%)
Diuretic		26 (100.0%)

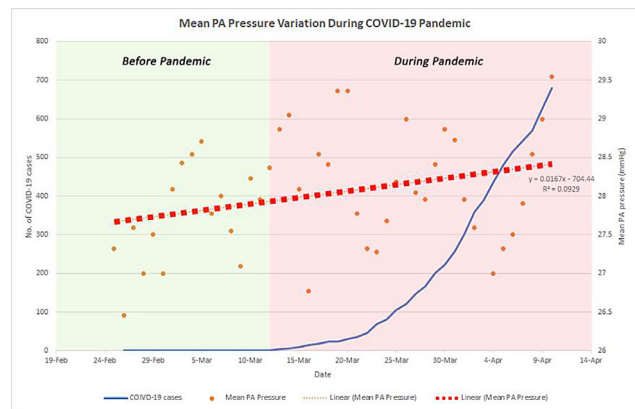


Figure 1. Trend of change in Mean PA pressure and Number of COVID-19 cases over time

201

Heart Transplantation Selection Committee Meetings: Transitioning from In-Person to Remote Video Meetings

Neha V. Chandra, Jeffrey Hsu, Ali Nsair, Rushi V. Parikh; University of California Los Angeles, Los Angeles, CA

**Background:** The COVID-19 pandemic has introduced numerous changes to clinical and administrative practices in heart transplantation. One change is the transition of transplant selection committee meetings from in-person to remote video conference in order to maintain social distancing requirements. The impact of this transition on committee members and patient care is unknown. **Methods:** A 35-item