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atrial appendage, resection of a malignant lung nodule presented with recurrent right pleural effusions. On exam, he had a loud MR murmur, which had been present for many years. Transthoracic echocardiogram (TTE) showed moderate MR. A transesophageal echocardiogram (TEE) revealed a partial flail of the posterior leaflet of the mitral valve resulting in moderate to severe eccentric anteriorly directed MR, amenable to the placement of a MitraClip. Two MitraClips were placed, which led to marked improvement in his dyspnea and a decrease in the frequency of thoracenteses for recurrent pleural effusions. A 71-year-old man with wATTR and a permanent pacemaker was seen in follow-up with marked dyspnea on exertion and fatigue, despite being euvoletic on exam; jugular venous pressure was not elevated but there was a Kussmaul's sign. First and second heart sounds normal and no MR murmur was heard, even in the left lateral position. TTE revealed moderate MR. His symptoms appeared disproportionate to the severity of his amyloid heart disease by exam as he had no evidence of right-sided congestion. It was suspected that the degree of MR was underestimated by TTE. TEE revealed mild diffuse thickening of the mitral valve leaflets with severe, functional MR that was directed centrally. The valve anatomy was suitable for MitraClip, and he underwent successful placement of 2 MitraClips. A 88-year-old man with MR and aortic insufficiency (AI) was seen with a new diagnosis of wATTR. He had dyspnea on minimal exertion, marked fatigue, 3 pillow orthopnea and paroxysmal nocturnal dyspnea, he was euvoletic on examination, with a Kussmaul's sign, pansystolic and diastolic murmurs. TTE showed severe MR and moderate to severe AI, confirmed with TEE, which also showed the mitral valve was suitable for MitraClip. A single MitraClip was put in situ, with trace residual MR. He noted improvement in his energy and level of dyspnea following. **Discussion:** It is important to consider other cardiac pathologies that co-exist in wATTR, which can contribute to patients' symptoms and are amenable to intervention. These cases demonstrate that MitraClip is feasible in MR in CA with careful patient selection.

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Existing Non-cardiac Comorbidities Negatively Impact Quality of Life Gains After Left Ventricular Assist Device Implant
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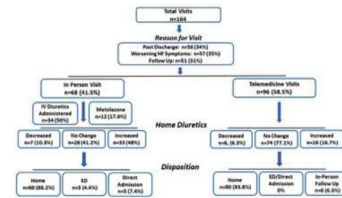
Introduction: The Interagency Registry for Mechanically Assisted Circulatory Support (INTERMACS) collects quality of life data via Kansas City Cardiomyopathy Questionnaire (KCCQ-12) and Visual Analog Score (VAS). These data are collected pre- and post-LVAD implantation. Though previous studies have shown that overall health-related quality of life (HRQoL) improves at one year after implantation, specific factors that predict a higher quality of life have not been identified. **Hypothesis:** Self-perceived quality of life after LVAD implant is influenced by demographics and preexisting comorbidities. **Methods:** We identified 118 patients in the INTERMACS database who received a LVAD at our institution. Of these, 26 patients completed the KCCQ-12 questionnaire and 32 patients completed VAS at 1-year follow up. An exploratory data analysis was conducted using descriptive statistics, correlation tests, and non-parametric comparison tests such as Wilcoxon rank-sum to identify important trends and predictors for changes in HRQoL. Multiple variables (patient characteristics, clinical data) were tested independently against the KCCQ-12 and VAS scores at one year and with the absolute change in these scores over a one-year period. Due to low sample size, we were not able to perform a multivariate model. **Results:** New York Heart Association Class IV symptoms at baseline (p=0.01) were predictive of large gains in VAS scores at one year. Frailty, although not reaching significance, may be associated with smaller magnitudes of improvement in KCCQ at one year (p=0.067). The presence of peripheral vascular disease at pre-implant predicts a lower VAS score at one year (p=0.03). Demographic factors such as age, sex, and marital status at implant did not predict higher post implant quality of life by either VAS or KCCQ. **Conclusion:** Existing non-cardiac comorbidities should be taken into consideration when assessing the health related quality of life benefit of LVAD implantation.

ENC-004
Initial Experience of A Heart Failure Disease Management Clinic During the Covid-19 Era
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Background: The COVID-19 pandemic has necessitated significant alterations in ambulatory heart failure (HF) care, primarily with the introduction of telemedicine. We describe our initial experience caring for patients in the COVID-19 era in the Johns Hopkins Heart Failure Bridge Clinic (JHHFBC), an ambulatory disease management and diuresis clinic aimed at preventing hospitalizations. **Methods:** The JHHFBC sees about 2500 patients per year with 25% of those patients needing intravenous diuretics in the clinic. Starting March 16, 2020, we implemented a COVID-specific workflow incorporating telemedicine, which the clinic had previously not

been utilizing. Patient visit outcomes were adjudicated, including change in diuretic dosing, intravenous diuretic administration, and need for hospitalization. **Results:** From March 16, 2020 to April 24, 2020 we had 116 patients seen 164 times (Figure 1). The average age of patients was 61 ± 14 years, 50% female, and 70% Black. Average left ventricular ejection fraction was 25 ± 21% with 45% nonischemic cardiomyopathy, 14% ischemic cardiomyopathy, 6% amyloid, 35% had heart failure with preserved ejection fraction. The majority of patients were New York Heart Association (NYHA) class II or III (109, 94%). Reasons for clinic referral included an equal frequency of post hospital discharge, worsening HF symptoms and routine follow up. Of the 96 telemedicine visits, 23% resulted in oral diuretic dose adjustment and 6 patients were referred for in-person visits. Of the 68 in-person visits, 34 (50%) resulted in intravenous diuretic administration in clinic, with 8 referrals to the emergency department or for direct admission. There were 2 referrals for cardiovascular and 3 referrals to hospice by the clinic. Two of 16 clinic patients that were tested for Covid 19 were positive. **Conclusion:** We found that HF patients could be effectively managed via telemedicine, however a subset still benefit from in-person assessment and access to ambulatory intravenous diuresis to avoid hospitalization. We hope these initial experiences will lend insights to optimization of future outpatient HF care, including the use of telemedicine, even after the current global health emergency.

Figure 1. Flow diagram of telemedicine and in-person visits to the Johns Hopkins Heart Failure Bridge Clinic during the COVID-19 pandemic, including diuretic adjustments and disposition from clinic.

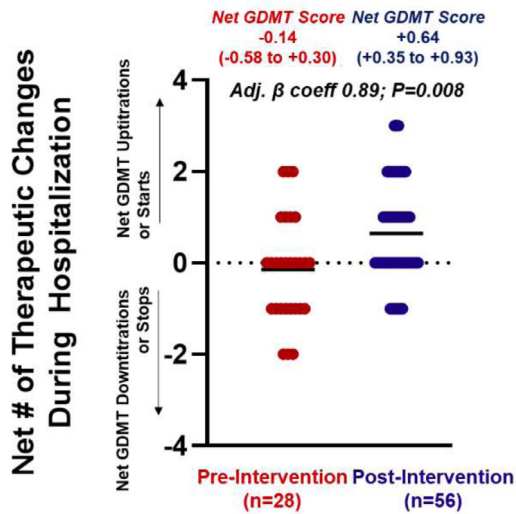


LBCT-002
Feasibility of Virtual Optimization of Guideline Directed Medical Therapy in Hospitalized Patients with HFrEF During the Covid-19 Pandemic: The IMPLEMENT-HF Pilot Study
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Introduction: Implementation of GDMT for HFrEF remains low. We assessed the feasibility of a virtual GDMT Team for optimization of GDMT during hospitalization for non-CV conditions. **Hypothesis:** A GDMT Team will improve GDMT optimization compared with usual care. **Methods:** Consecutive hospitalized patients with HFrEF ≤40% were prospectively identified. Patients with critical illness, cardiology consult, de-novo HF, COVID-19 & SBP ≤90mmHg were excluded. February 3 to March 1, 2020 served as a pre-intervention period during which patients were screened, but did not receive GDMT Team interventions. From March 2 to June 21, 2020, a pharmacist-physician team provided up to 1 suggestion daily for GDMT optimization (evidence-based -blockers, ACEi/ARB/ARNI, & MRA) to treating teams based on an evidence-based algorithm. The primary outcome of a composite *GDMT optimization score*, the net of positive therapeutic changes (+1 for new initiations/up-titrations) & negative therapeutic changes (-1 for discontinuations/down-titrations) during hospitalization, was compared between the pre- vs. post-intervention periods. Multivariable linear regression models were built adjusting associations for clinical factors. Safety outcomes requiring intervention or GDMT down-titration were identified. **Results:** Of 187 encounters, 84 (45%) met eligibility criteria: 28 pre-intervention, 56 post-intervention. Mean age was 68±11 yrs, 70% men, and 61% White. Of 88 GDMT Team suggestions, 49 (56%) were followed by discharge. During the intervention, cumulative COVID-19 hospitalizations rose from 0 to 11085 in MA. Mean GDMT optimization score was -0.14 (95% CI: -0.58 to +0.30) pre-intervention & +0.64 (95% CI: +0.35 to +0.93) post-intervention (P=0.004). In a model inclusive of demographics, comorbidities, vital signs, potassium levels, eGFR, & LVEF, the intervention was the only factor associated with higher GDMT optimization score (β coeff 0.89; P=0.008). Safety events included 1 instance each of AKI, hyperkalemia, bradycardia, & hypotension. **Conclusion:** Admission for non-CV conditions is a feasible setting for GDMT optimization. A virtual GDMT Team was associated

with improved GDMT; this implementation strategy warrants testing in a prospective RCT.

Figure: GDMT Optimization Score Before & After GDMT Team Intervention.



LBCT-015

Transthyretin Cardiac Amyloidosis: Patient Characteristics in Our Region
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Introduction: Transthyretin cardiac amyloidosis (ATTR) is an increasingly recognized cause of heart failure (HF). The prevalence is not exactly known and a significant underdiagnosis is suspected. The objective of our study is to identify the characteristics of patients with this diagnosis in our region. **Methods:** Prospective single-center study that included all patients (p) with cardiac ATTR diagnosis from March 2016 to January 2020. Clinical, analytical and diagnostic imaging data were collected. **Results:** 44p were included with cardiac ATTR diagnosis confirmed by 99mTc-DPD scintigraphy (84% with intense cardiac 99mTc-DPD uptake and 16% moderate). The mean age at diagnosis was 83 years, 77% were men and 52% were in atrial fibrillation. The most frequent form of presentation was HF (61% of patients) and left ventricular hypertrophy (32%). Only 7% was a casual finding. The mean left ventricular ejection fraction was 53%, the mean thickness of the interventricular septum was 16.5 mm and the posterior wall was 13.5 mm. Only 4.5% of the cases presented signs of obstruction. Aortic stenosis was present in 25% of patients, being severe in 11% of cases. The left ventricular myocardial deformation or strain pattern was analyzed by echocardiogram in 29 patients (64%) and 97% of the patients had a compatible pattern with amyloidosis. A genetic study was performed in 68% of the individuals (30p) and 98% had the natural or wild-type form of the disease. All patients aged 80 years or older had no mutations in the TTR gene. The only patient with a familial form was diagnosed at age 76. During a median follow-up of 14 months 77% of patients had or developed HF symptoms, 57% in NYHA functional class II. 6 patients (13.5%) died during follow-up (18.5% with diagnosis due to HF and 7.1% with diagnosis due to left ventricular hypertrophy, p=0.47). **Conclusions:** Left ventricular myocardial strain assessment by echocardiogram is the initial diagnostic technique that provides the most value when suspecting cardiac ATTR amyloidosis. In our series the genetic study provides little value in patients older than 80 years with a compatible echocardiogram and 99mTc-DPD scintigraphy.