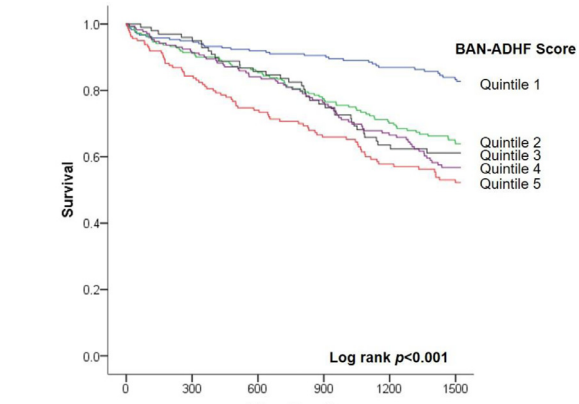
NT-proBNP. During median follow up of 1,467 days, 467 (52.2%) patients died. A step-wise increase in all-cause mortality was observed across increasing BAN-ADHF quintiles (**Figure**, log-rank $p<0.001$). Compared to Quintile 1, participants with BAN-ADHF scores in Quintile 5 had a 192% higher risk of all-cause mortality (HR 2.92, 95% CI 2.18-3.92, $p<0.001$). **Conclusions:** Higher BAN-ADHF risk scores are significantly associated with an increased risk of long-term all-cause mortality in patients with ADHF.



No. at risk						
BAN-ADHF Score						
Quintile 1	239	225	203	185	156	138
Quintile 2	222	200	179	153	127	111
Quintile 3	100	94	83	69	54	47
Quintile 4	173	154	136	117	100	78
Quintile 5	161	133	110	95	76	65

094

Multidisciplinary Approach To Incorporating Sodium-glucose Co-transporter 2 Inhibitors In Ambulatory Heart Failure Patients

GILLIAN P. LEUNG, SARAH SIMPSON, OKSANA KAMNEVA, ELIZABETH VOLZ; UNC REX HEART FAILURE CLINIC, RALEIGH, NC

Introduction: : In recent years, sodium-glucose co-transporter 2 inhibitors (SGLT2i) gained an indication in heart failure (HF) with reduced ejection fraction. With reduced cardiovascular mortality and HF hospitalizations, SGLT2i are now recommended and incorporated into the 2021 Update of the 2017 ACC Expert Consensus Decision Pathway for Optimization of HF Treatment. **Hypothesis:** Multidisciplinary screening of patients in the ambulatory setting can identify qualified patients and facilitate SGLT2i initiation. **Methods:** A SGLT2i initiation pilot program was started at the REX HF Clinic. During the pilot, a Clinical Pharmacist (CP) screened candidates based on select baseline demographics that included primary indications and contraindications to SGLT2i. It was decided that preference would be given to titration of traditional guideline-directed medical therapy (GDMT) over SGLT2i initiation. The CP screened all patients, identified those that qualified, and shared findings with the HF providers. Recommendations were made with consideration of SGLT2i cost and insurance-preferred agent. The HF provider and patient discussed medication changes as part of the clinic visit. When a SGLT2i was prescribed, the CP provided education to the patient, facilitated affordability by providing manufacturer coupon cards or assistance program applications, and monitored patient response and safety. **Results:** : Two hundred forty-one unique patients were screened from October 2020 to April 2021, of which 112 patients (46.4%) qualified for SGLT2i (see TABLE 1). Sixty-four of the 112 patients had titration of other GDMT (57.1%). Of the remaining 48 patients, 12 were started on SGLT2i, while 7 had a contraindication. No medication changes were made in 15 patients, mostly due to patient preference or cost concerns.

Table 1. Outcomes

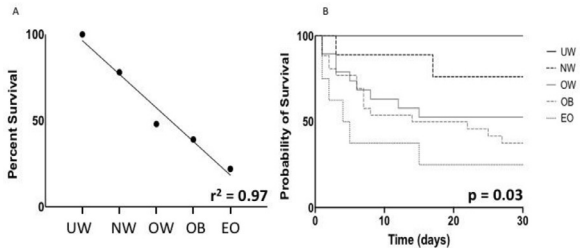
Qualified patients = 112	N (%)
GDMT titrated	64 (57.1)
No med change	15 (13.4)
SGLT2i initiated	12 (10.7)
No-show	12 (10.7)
Contraindicated	7 (6.3)
Deferred to other MD	2 (1.8)

095

Linear Association Of Body Mass Index And Mortality In Cardiogenic Shock: A Retrospective Analysis

MATTHEW S. DELFINER, CARLOS MANUEL ROMERO, CATHERINE DILLANE, ELIZABETH W. FELDMAN, EMAN HAMAD; LEWIS KATZ SCHOOL OF MEDICINE AT TEMPLE UNIVERSITY, PHILADELPHIA, PA

Background: Cardiogenic shock (CS) continues to have high mortality despite advancements in care, including the development of shock teams and standardized protocols. Body mass index (BMI) may be associated with CS mortality, though the exact relationship remains unknown. **Methods:** A retrospective observational study was performed that included all patients cared for by a single-center shock team from 2014 to 2019. Patients were divided into cohorts based on their weight category: underweight, normal weight, overweight, obese, and extremely obese. Hemodynamics, demographics, and co-morbidities were compared between groups. Survival to 30 days of activation of the shock team was analyzed between groups. Descriptive statistics are included as mean (SD), and categorical variables are presented as number of patients (%). T-tests, ANOVA, and Mann Whitney U tests were used to compare means, and Fisher exact tests and odds ratios were used for categorical data. Survival analyses were performed with Mantel Cox method. **Results:** Eighty patients were cared for by the shock team during the study period; the mean age was 62.0 years (SD 12.3 years), and 35 patients (43%) were female. The mean BMI for the total population was 31.1 kg/m2 (SD 8 kg/m2). The mean BMI for survivors was 29.7 kg/m^2 (SD 8.0 kg/m^2) and 33.7 kg/m^2 (SD 7.6 kg/m^2) for non-survivors ($p = 0.04$). One hundred percent ($n = 5$) of underweight patients survived, compared to 78% of normal weight patients ($n = 21$), 48% of overweight patients ($n = 21$), 39% of obese patients ($n = 28$), and 22% of extremely obese patients ($n = 9$) ($p = 0.02$). This trend represents is a linear relationship between weight category and survival ($r^2 = 0.97$). Survival analysis demonstrates a significant difference between each group ($p = 0.03$). There were no differences in age, cardiac power output, pulmonary artery pulsatility index, or prevalence of comorbid diseases between each group. **Conclusions:** There is a linear inverse association between BMI and survival in CS. This correlation is not explained by co-morbidities or other factors that are known to have high risk for CS mortality, suggesting that BMI itself is a risk factor. BMI should weigh into clinicians' future risk assessments for CS.



097

New York Heart Association Functional Class And Mortality In Obstructive Hypertrophic Cardiomyopathy

NEAL LAKDAWALA[1], SARA SABERI[2], SHARLENE DAY[3], JODIE INGLES[4], CHRIS SEMSARIAN[4], IACOPO OLIVOTTO[5], CAROLYN HO[1], JENNIFER FINE[6], YAPING XU[7], MEGAN SUTTON[8], JIPAN XIE[9], YAN WANG[9]; [1]BRIGHAM AND WOMEN'S HOSPITAL, BOSTON, MA; [2]UNIVERSITY OF MICHIGAN SCHOOL OF MEDICINE, ANN ARBOR, MI; [3]PENN MEDICINE, PENNSYLVANIA, PA; [4]CENTENARY INSTITUTE, SYDNEY, AUSTRALIA; [5]UNIVERSITà DEGLI STUDI DI FIRENZE, FLORENCE, ITALY; [6]BMS MATCHING GIFT PROGRAM, SOUTH SAN FRANCISCO, CA; [7]BRISTOL MYERS SQUIBB, BRISBANE, CA; [8]MYOKARDIA INC, A WHOLLY OWNED SUBSIDIARY OF BRISTOL MYERS SQUIBB, BRISBANE, CA; [9]ANALYSIS GROUP, LOS ANGELES, CA

Introduction: The relationship between New York Heart Association functional class (NYHA class) and mortality is well established in heart failure, but not in obstructive hypertrophic cardiomyopathy (oHCM). **Hypothesis:** Among patients with oHCM, worse NYHA class is correlated with increased mortality risk. **Methods:** The Sarcomeric Human Cardiomyopathy Registry

(SHaRe) enrolled patients from 10 HCM specialty centers worldwide. The current study used the data through March 2019, analyzing patients ≥18 years old with oHCM (left ventricular outflow tract (LVOT) peak gradient >30 mmHg *or* septal reduction therapy) and documentation of NYHA class. Patients were followed from the date of index NYHA class assessment (first documentation of NYHA class I, II, III or IV) to last SHaRe visit or death. The risks of all-cause mortality and a composite endpoint of death and heart transplant were compared across index NYHA classes using log-rank tests. **Results:** We analyzed 2495 patients, mean age 47.6 years at diagnosis and 42% females. Patient characteristics varied across NYHA class (Table). Over median follow-up of 3.9 years, there were 216 deaths: 52 initially class I (5% of class I; 24% of deaths), 97 class II (9% of class II; 45% of deaths), and 67 in class III/IV (13%; 31% of deaths). Risks of all-cause mortality and the composite outcome of death or heart transplant increased with worse NYHA class (both p<0.001; Table). **Conclusion:** Worse NYHA class is correlated with increased all-cause mortality in oHCM. Monitoring functional status will assist in assessing treatment response and informing prognosis.

Table. Patient characteristics and outcomes by NYHA class in oHCM

	NYHA I n=951	NYHA II n=1031	NYHA III/IV n=513
Baseline characteristics*			
Age at diagnosis (years), mean (SD)	44.0 (17.7)	49.3 (16.2)	50.9 (16.4)
Female, n (%)	283 (29.8)	463 (44.9)	293 (57.1)
White, n (%)	829 (89.0)	915 (89.8)	448 (88.2)
Family history of HCM, n (%)	305 (32.1)	296 (28.7)	135 (26.3)
Resting LVOT peak gradient (mmHg), mean (SD)	37 (34)	46 (38)	57 (42)
Maximal LVWT (mm), mean (SD)	19.3 (5.6)	19.8 (5.2)	20.8 (5.8)
LVEF (%), mean (SD)	68.2 (7.1)	68.1 (8.2)	68.1 (9.1)
Outcomes			
Follow-up time (years), median	4.5	3.8	3.3
All-cause mortality**			
Probability of death at one year (%)	0.4	0.9	3.6
Composite endpoint**			
Probability of death or heart transplant at one year (%)	0.4	1.0	4.3

SD=standard deviation; HCM=hypertrophic cardiomyopathy; LVOT= left ventricular outflow tract; LVWT=left ventricular wall thickness; LVEF=left ventricular ejection fraction; NYHA=New York Heart Association

* Reported for subjects with non-missing values

** p<0.001 based on log-rank tests comparing NYHA classes

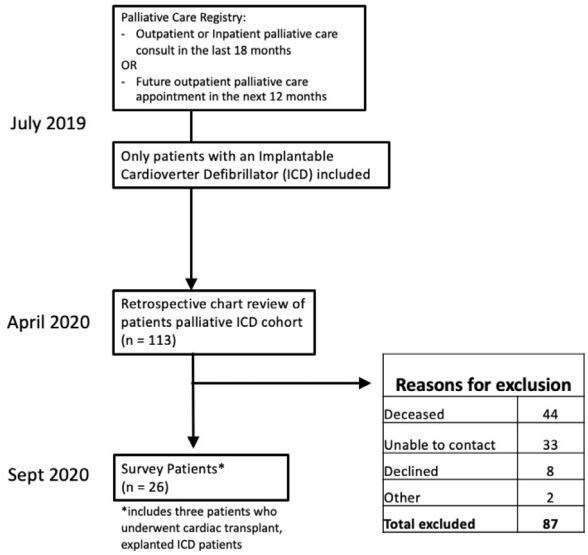
098

Knowledge And Attitudes Of Implantable Cardioverter Defibrillators In A Diverse Patient Population Nearing End Of Life

MARK D. BERLACHER, CHRISTINE CHEN, ARLEN SUAREZ, CAROL ABOUSSAB, ROHIT BADIA, KELLEY NEWCOMER, MELANIE SULISTIO; UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER, DALLAS, TX

Background: While prior assessments of ICD knowledge have consistently demonstrated poor patient understanding, these analyses lack diversity. This is a critical shortcoming, particularly for patients at end of life, as differences in goals of care at end of life exist between different races and ethnicities. **Objective:** To evaluate patient ICD knowledge and perceptions in a diverse patient population with defibrillators nearing end of life. **Design:** Cross sectional analysis and telephone survey of patients with ICDs at a single center, within a large safety net county healthcare system. Patients within an existing palliative care registry were selected for inclusion, based on presence of an ICD as seen in Figure 1. **Results:** A total of 113 patients met criteria for retrospective chart review. Patient demographics were 48% black, 26% Hispanic. Regarding funding status, 35% were uninsured, participated in the financial assistance program or had Medicaid (Table 1). Eight months following chart review, 44 patients had died (39%). Of the surviving patients, 26 (38%) completed the survey. Patients scored numerically worse on ICD knowledge questions compared to a prior study population. Lower knowledge scores were not associated with race or ethnicity. The majority of survey participants (69%) were unaware that ICD deactivation does not require surgery and nearly all (88%) said no that doctor had ever discussed the option of ICD deactivation. **Conclusion:** Vulnerable and diverse patients nearing end of life may have worse understanding of ICDs than previously described patients. Decreased knowledge did not correlate with race or ethnicity. Challenges in healthcare delivery in this patient population may result in our most vulnerable patients being poorly equipped to align their ICD settings with goals of care when nearing end of life.

Figure 1: Generation of Patient Populations



099

Validation Of A Computable Algorithm For Medication Optimization In Heart Failure With Reduced Ejection Fraction

MICHAEL P. DORSCH[1], DAVID CORDWIN[2], JESSICA GUIDI[3,1], SCOTT HUMMEL[3], TODD KOELLING[3]; [1]UNIVERSITY OF MICHIGAN, ANN ARBOR, MI; [2]MICHIGAN MEDICINE, UNIVERSITY OF MICHIGAN, ANN ARBOR, MI; [3]ANN ARBOR, MI

Background: Guideline-directed medical therapy (GDMT) optimization can improve outcomes in heart failure with reduced ejection fraction (HFrEF) but often does not occur in clinical practice. The objective of this study was to assess the prescribing of GDMT in clinical trial data using a novel algorithm to identify opportunities for medication optimization. **Methods:** Clinical trial data from GUIDE-IT (Guiding Evidence-Based Therapy Using Biomarker Intensified Treatment in Heart Failure), a study using natriuretic peptides to guide medical therapy in HFrEF, was passed through a computable medication optimization algorithm to output GDMT recommendations. Algorithm-based recommendations were compared to actual medication changes at GUIDE-IT visits. **Results:** Data were analyzed from 5733 GUIDE-IT visits in 841 unique patients. In patients not on therapy, the algorithm recommended initiation of angiotensin-converting enzyme inhibitor/angiotensin receptor blocker (ACEi/ARB), beta-blockers, and mineralocorticoid receptor antagonists (MRA) in 480 (52.8%), 51 (34.9%), and 1421 (68.1%) visits, respectively. Initiation of the agents only occurred in 100 (20.8%), 29 (56.9%), and 224 (15.8%) of those visits. The algorithm also recommended increasing doses in an additional 1475 (48.8%) visits for ACEi/ARBs and 1158 (39.4%) visits for beta-blockers. The dose increases only occurred in 358 (24.3%) of these visits for ACEi/ARBs and 426 (36.8%) visits for beta-blockers leaving many opportunities for medication optimization (Figure 1). The medication optimization score (MOS) increased over time (Figure 2). As the MOS increased over time, the hazard ratio for time to first CV death or HF hospitalization decreased. **Conclusions:** The algorithm accurately identified patients that met the criteria for GDMT initiation and titration. Even in a clinical trial with robust protocols, GDMT could have been further optimized in a meaningful number of visits. The MOS generated from the algorithm may correlate with clinical outcomes. Implementation of algorithms into electronic health records could help identify suboptimal GDMT and improve HFrEF care.