JACC-HF: Great papers of the last year

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Conflict of Interest Disclosures

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Clinical Outcomes in Patients With Heart Failure Hospitalized With COVID-19

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ABSTRACT

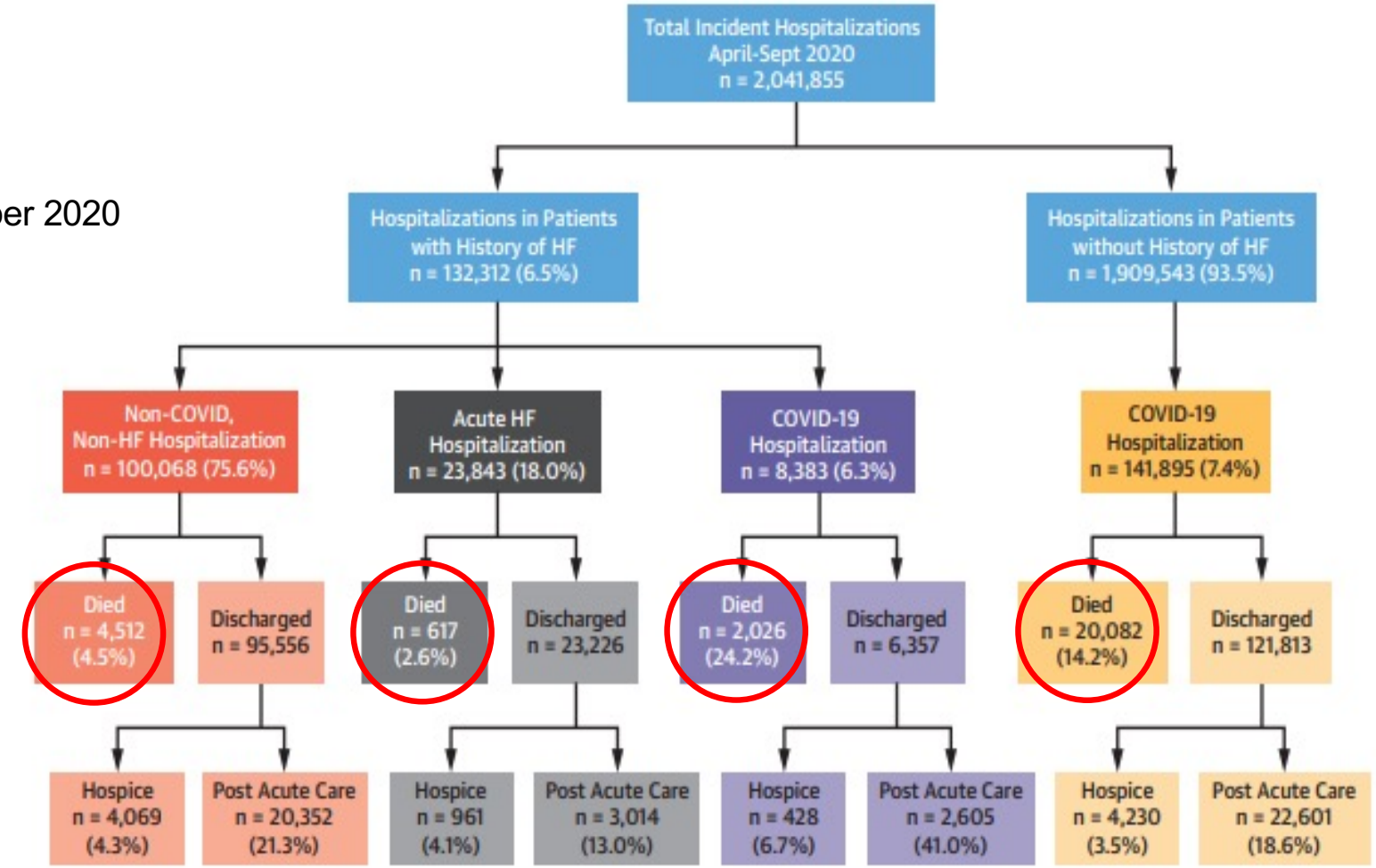
OBJECTIVES The purpose of this study was to evaluate in-hospital outcomes among patients with a history of heart failure (HF) hospitalized with coronavirus disease-2019 (COVID-19).

BACKGROUND Cardiometabolic comorbidities are common in patients with severe COVID-19. Patients with HF may be particularly susceptible to COVID-19 complications.

METHODS The Premier Healthcare Database was used to identify patients with at least 1 HF hospitalization or 2 HF outpatient visits between January 1, 2019, and March 31, 2020, who were subsequently hospitalized between April and September 2020. Baseline characteristics, health care resource utilization, and mortality rates were compared between those hospitalized with COVID-19 and those hospitalized with other causes. Predictors of in-hospital mortality were identified in HF patients hospitalized with COVID-19 by using multivariate logistic regression.

Bhatt AS et al. JACC: Heart Failure 2021; 9:65-73

April –September 2020



Bhatt AS et al. JACC: Heart Failure 2021; 9:65-73

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Use of Cardiopulmonary Stress Testing for Patients With Unexplained Dyspnea Post–Coronavirus Disease

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ABSTRACT

OBJECTIVES The authors used cardiopulmonary exercise testing (CPET) to define unexplained dyspnea in patients with post-acute sequelae of severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) infection (PASC). We assessed participants for criteria to diagnose myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS).

BACKGROUND Approximately 20% of patients who recover from coronavirus disease (COVID) remain symptomatic. This syndrome is named PASC. Its etiology is unclear. Dyspnea is a frequent symptom.

Mancini DM et al. JACC Heart Failure 2021; 9:927-37

- **Many patients (20%)with SARS-CoV 2 infection(COVID) have post acute sequelae of COVID (PASC) or "long" COVID**

- **41 patients with "long COVID" (persistent dyspnea at least 3 months post-COVID)**

  √ **Mean time post-COVID = 8.9± 3.3 months**
  √ **Normal CXR**
  √ **Normal PFTs**
  √ **Normal Chest CT**

- **Underwent Cardio-Pulmonary Exercise Testing(CPET)**

Mancini DM et al. JACC Heart Failure 2021; 9:927-37

- **18 men and 21 women**
- **Oxygen consumption 77 ± 21% predicted**
- **88% had ventilatory abnormalities with either or both increased VE/VC02 or hypocapnia (PetC02)**
- **44% met criteria for ME/CFS (myalgic encephalomyelitis-chronic fatigue syndrome)**
- **CPET may be a valuable tool to assess these patients**

Mancini DM et al. JACC Heart Failure 2021; 9:927-37

JACC: HEART FAILURE VOL. 9, NO. 2, 2021

Efficacy of Tafamidis in Patients With Hereditary and Wild-Type Transthyretin Amyloid Cardiomyopathy

Further Analyses From ATTR-ACT

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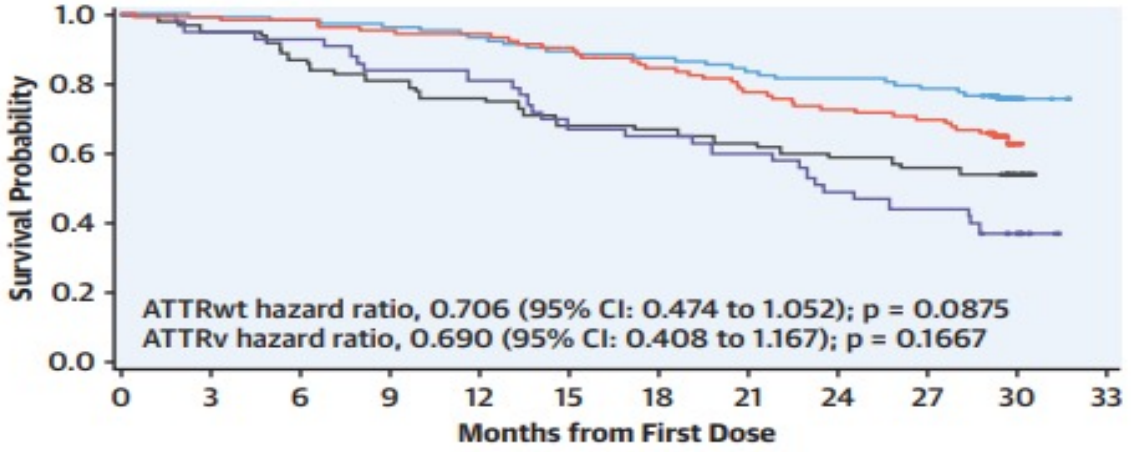
ABSTRACT

OBJECTIVES Tafamidis is an effective treatment for transthyretin amyloid cardiomyopathy (ATTR-CM), this study aimed to determine whether there is a differential effect between variant transthyretin amyloidosis (ATTRv) and wild-type transthyretin (ATTRwt).

BACKGROUND ATTR-CM is a progressive, fatal disorder resulting from mutations in the ATTRv or the deposition of denatured ATTRwt.

Rapezzi C et al. JACC Heart Failure 2021;9:115-23

Survival in TTR Cardiac Amyloid for both wild type and hereditary



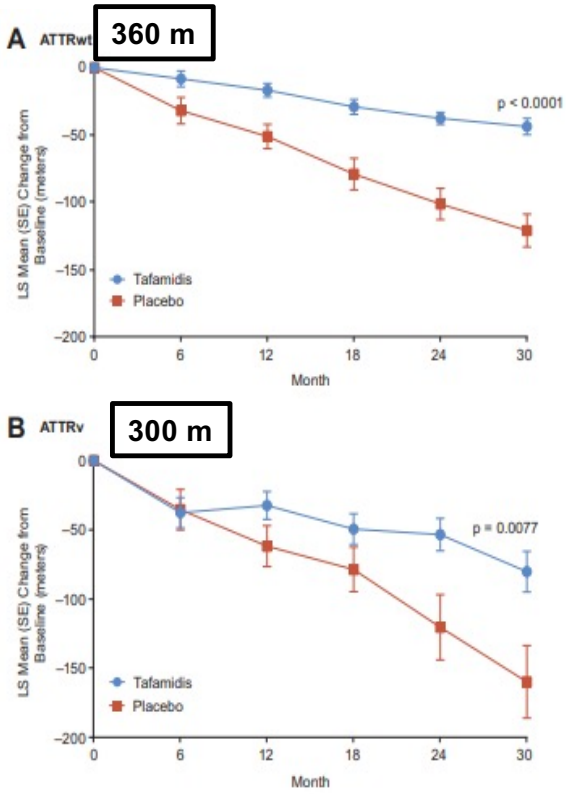
No. at Risk
Patients Remaining at Risk (Cumulative Events)

ATTRwt, Tafamidis	201	199	197	193	187	179	174	169	163	158	80	0
	0	2	4	8	14	22	27	32	38	43	49	49
ATTRwt, Placebo	134	132	131	127	126	121	113	105	97	94	40	0
	0	2	3	7	8	13	21	29	37	40	48	49
ATTRv, Tafamidis	63	60	55	51	48	43	42	40	37	35	19	0
	0	3	8	12	15	20	21	23	26	28	29	29
ATTRv, Placebo	43	41	40	36	35	29	28	26	21	19	11	0
	0	2	3	7	8	14	15	17	22	24	27	27

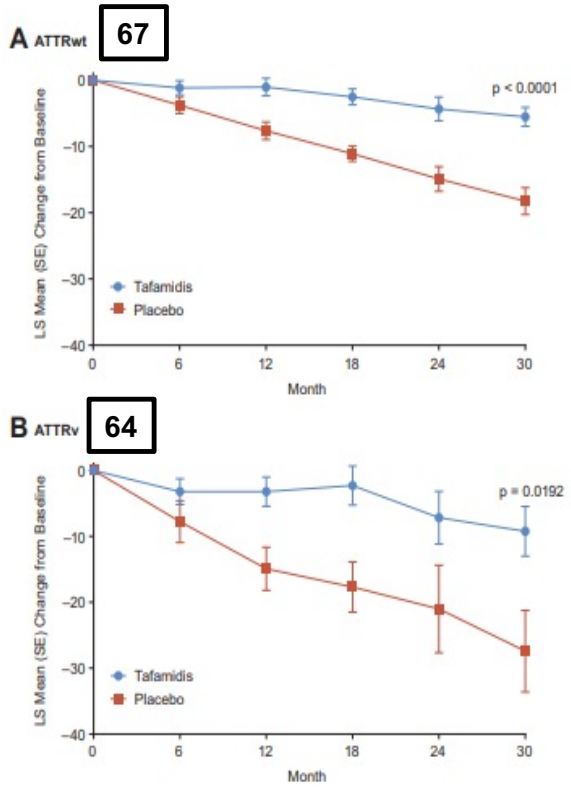
Rapezzi C et al. JACC Heart Failure 2021;9:115-23

Changes in 6MWHD, KCCCQ, NT proBNP

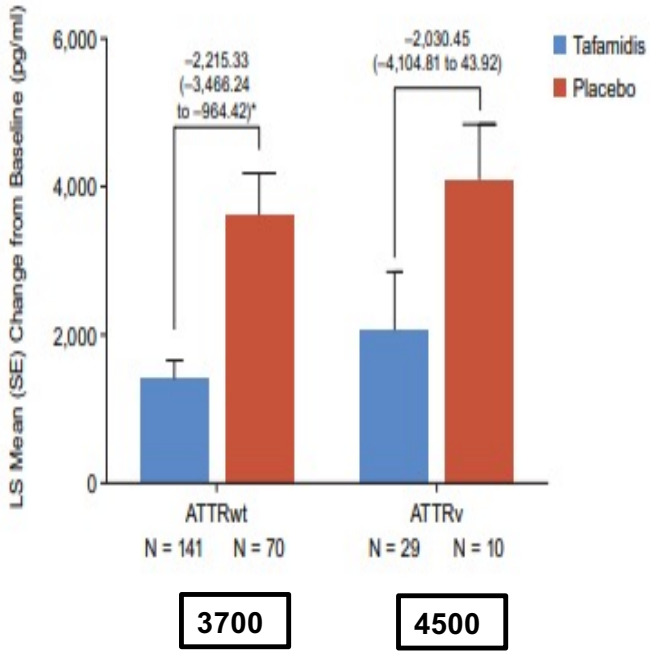
6MHWD



KCCQ



NT-proBNP



Rapezzi C et al. JACC Heart Failure 2021;9:115-23

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NT-proBNP and ICD in Nonischemic Systolic Heart Failure

Extended Follow-Up of the DANISH Trial

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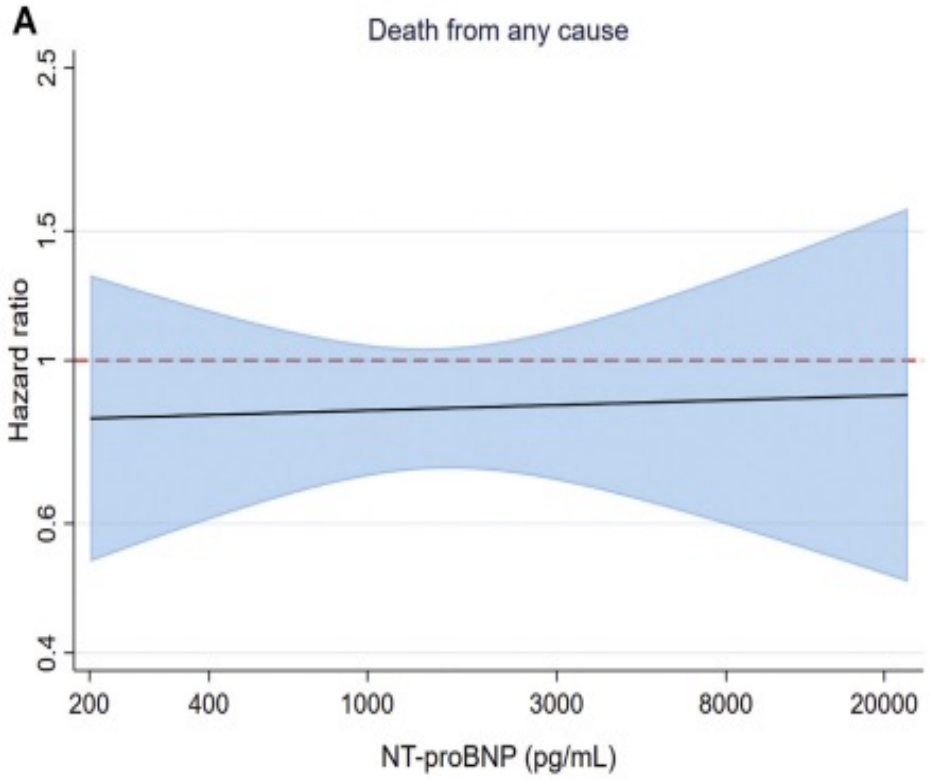
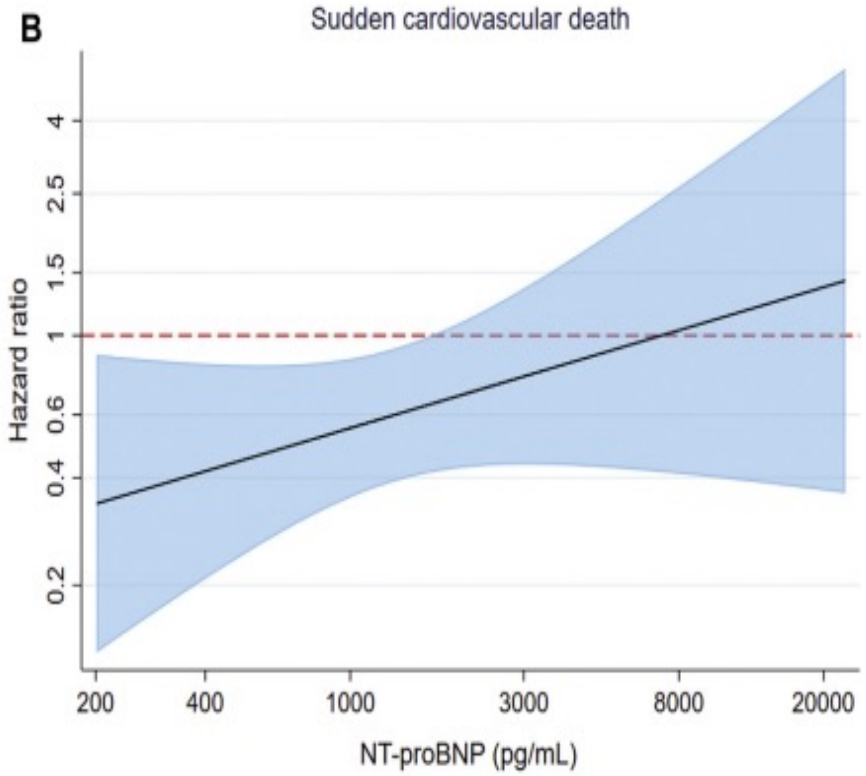
ABSTRACT

OBJECTIVES In this extended follow-up study of the DANISH (Danish Study to Assess the Efficacy of Implantable Cardioverter Defibrillators in Patients with Non-ischemic Systolic Heart Failure on Mortality) trial, adding 4 years of additional follow-up, we examined the effect of implantable cardioverter-defibrillator (ICD) implantation according to baseline N-terminal pro-B-type natriuretic peptide (NT-proBNP) level.

BACKGROUND In the DANISH trial, NT-proBNP level at baseline appeared to modify the response to ICD implantation.

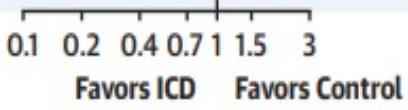
Butt JH et al. JACC Heart Failure 2022;10:161-71





Butt JH et al. JACC Heart Failure 2022;10:161-71

	Control	ICD	Hazard Ratio (95% CI)	*P*-Value for Interaction
Death from any cause				0.28
All trial patients	40.4%	37.4%	0.89 (0.74 - 1.08)	
NT-proBNP <1,177 pg/mL	33.2%	26.7%	0.75 (0.55 - 1.03)	
NT-proBNP ≥1,177 pg/mL	48.1%	47.2%	0.95 (0.74 - 1.21)	
Cardiovascular death				0.20
All trial patients	29.3%	26.4%	0.87 (0.70 - 1.09)	
NT-proBNP <1,177 pg/mL	24.0%	17.3%	0.69 (0.47 - 1.00)	
NT-proBNP ≥1,177 pg/mL	35.1%	34.8%	0.94 (0.70 - 1.25)	
Sudden cardiovascular death				0.08
All trial patients	10.2%	6.3%	0.60 (0.40 - 0.92)	
NT-proBNP <1,177 pg/mL	10.6%	4.1%	0.37 (0.19 - 0.75)	
NT-proBNP ≥1,177 pg/mL	9.7%	8.3%	0.86 (0.49 - 1.51)	
Non-cardiovascular death				0.95
All trial patients	11.1%	11.0%	0.94 (0.66 - 1.34)	
NT-proBNP <1,177 pg/mL	9.2%	9.4%	0.92 (0.53 - 1.59)	
NT-proBNP ≥1,177 pg/mL	13.1%	12.4%	0.96 (0.60 - 1.55)	



Butt JH et al. JACC Heart Failure 2022;10:161-71

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Clinical Outcomes With Metformin and Sulfonylurea Therapies Among Patients With Heart Failure and Diabetes

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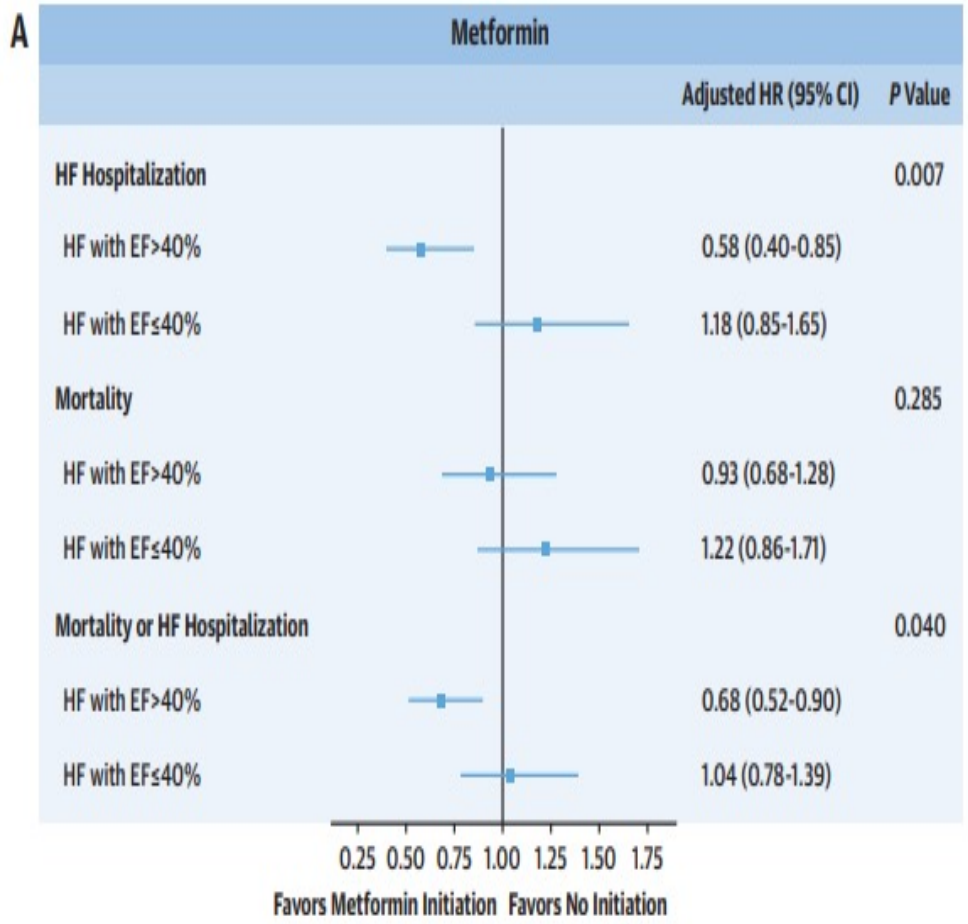
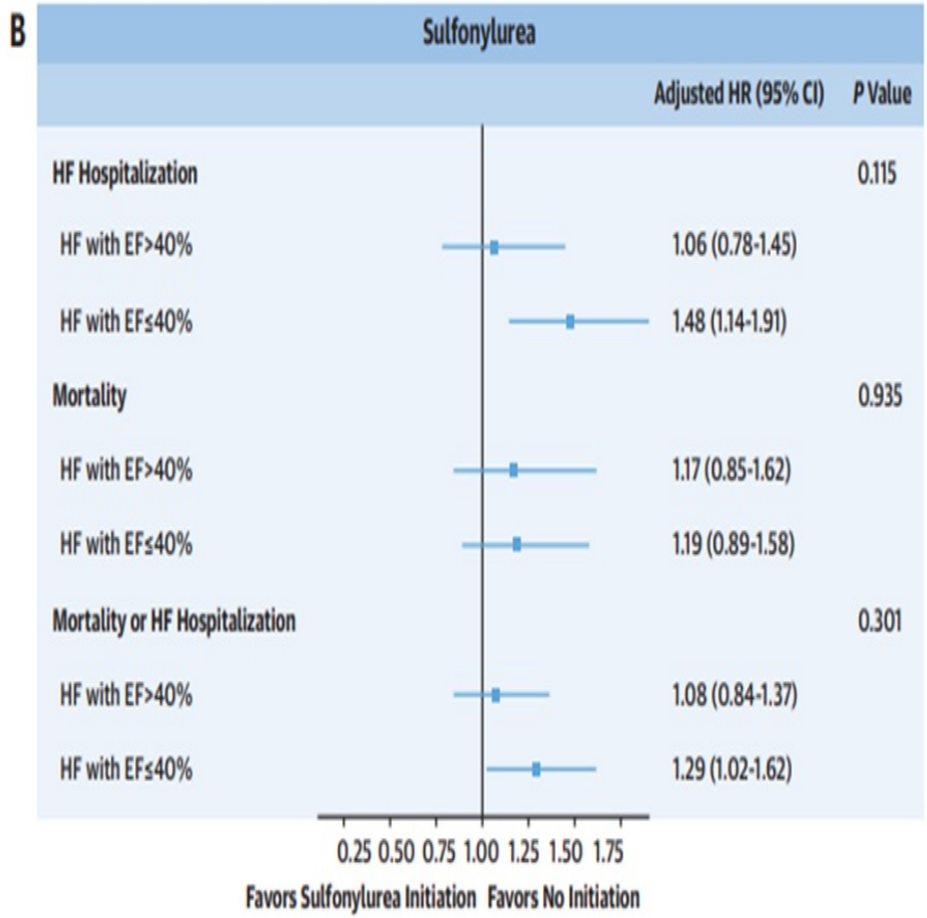
ABSTRACT

OBJECTIVES The authors sought to characterize associations between initiation of metformin and sulfonylurea therapy and clinical outcomes among patients with comorbid heart failure (HF) and diabetes (overall and by ejection fraction [EF] phenotype).

BACKGROUND Metformin and sulfonylureas are frequently prescribed to patients with diabetes for glycemic control. The impact of these therapies on clinical outcomes among patients with comorbid HF and diabetes is unclear.

Khan MS et al. JACC Heart Failure 2022;10:198-210





Khan MS et al. JACC Heart Failure 2022;10:198-210

JACC: HEART FAILURE VOL. 10, NO. 1, 2022

Remote Speech Analysis in the Evaluation of Hospitalized Patients With Acute Decompensated Heart Failure

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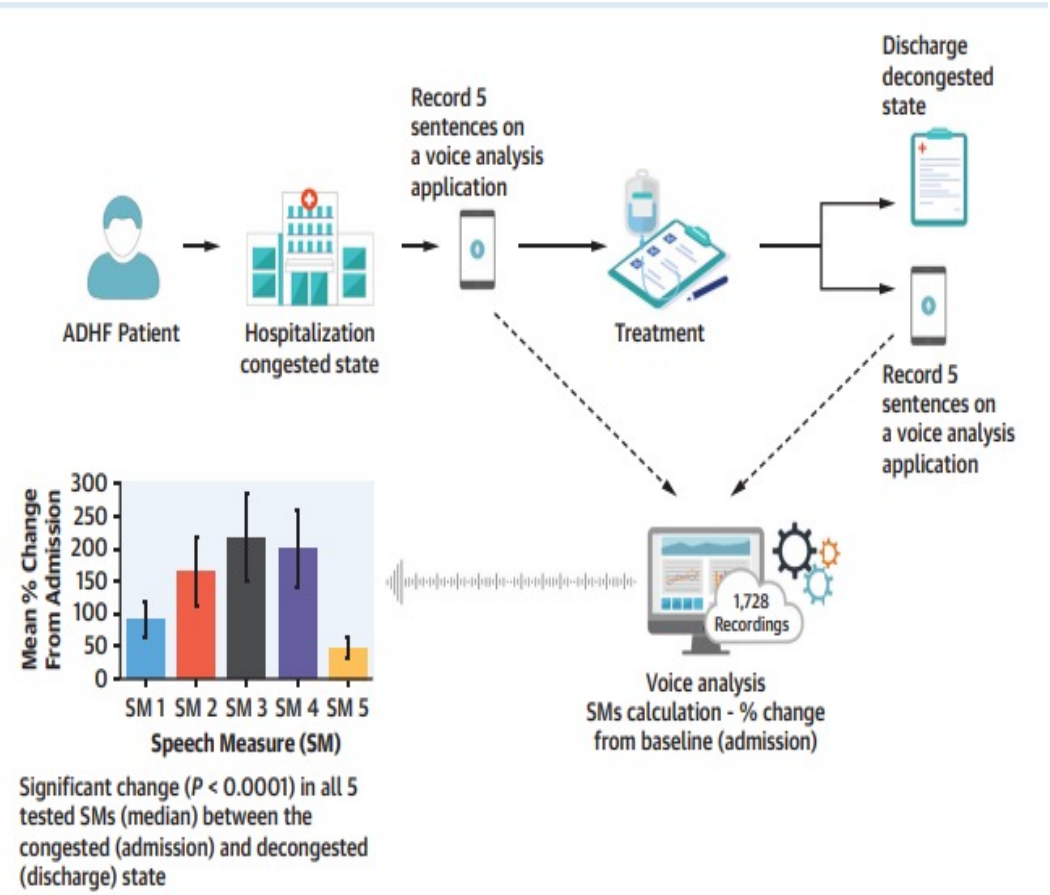
ABSTRACT

OBJECTIVES This study assessed the performance of an automated speech analysis technology in detecting pulmonary fluid overload in patients with acute decompensated heart failure (ADHF).

BACKGROUND Pulmonary edema is the main cause of heart failure (HF)-related hospitalizations and a key predictor of poor postdischarge prognosis. Frequent monitoring is often recommended, but signs of decompensation are often missed. Voice and sound analysis technologies have been shown to successfully identify clinical conditions that affect vocal cord vibration mechanics.

Amir O et al. JACC Heart Failure 2022;10:41-49



Khan MS et al. JACC Heart Failure 2022;10:198-210

JACC: HEART FAILURE
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EDITOR'S PAGE

Promoting Diversity in Clinical Trial Leadership: A Call to Action

JoAnn Lindenfeld, MD, *Deputy Editor, JACC: Heart Failure*,
Mona Fiuzat, PharmD, *Executive Editor, JACC: Heart Failure*,
Christopher O'Connor, MD, *Editor-in-Chief, JACC: Heart Failure*

With this in mind, we ask what we can do to make a change. This journal will take a new approach to evaluate diversity of authorship and also the trial leadership in general. We have changed our author instructions with new language to evaluate this point:

Diversity information (required for multicenter clinical trials design and results papers): The authors must explain the diversity of the study's leadership (PIs, committees, core labs, etc.) and author list in the Methodology section of the manuscript. If there is a lack of diversity, an explanation of this must be stated in the Limitations section of the manuscript.

Lindenfeld J, Fuizat M, O'Conner C. JACC Heart Failure 2021;9:401-2

SUMMARY

- The inpatient mortality for patients with decompensated HF and COVID is high
- CPET may be a good way to document symptoms in “long COVID” (in patients without HF)
- Tafadimis is effective as slowing deterioration in both wild type and hereditary amyloidosis
- NT proBNP may be helpful in deciding the clinical benefit of ICD for patients with HFrEF and dilated CM
- Sulfonureas should probably be eliminated in most patients with HF and DM
- There are exciting new potential methods being evaluated to follow HF patients
- Let’s use all the tools we have to promote inclusivity