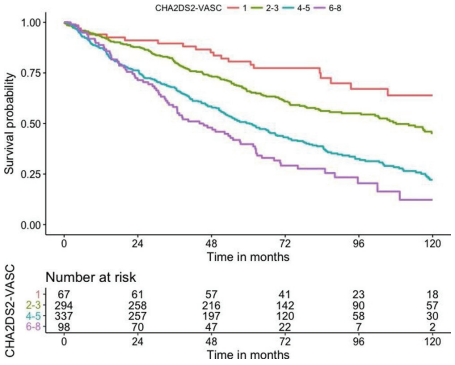
Results: 796 patients were identified. 16% were female, mean follow up duration was 63 (±37) months. The median score was 4 (IQR 3–5). A Kaplan Meier curve was plotted (figure 1), showing separation between score groups. In univariate analysis, the score criteria age, diabetes, stroke, vascular disease all significantly correlated with worse survival. Female sex showed a trend towards better survival (HR 0.79, 95%CI 0.6–1.03, p=0.077). The hypertension criterion did not correlate with survival (p=0.743). When testing the total score, higher scores were associated with worse survival both in univariate (HR for incremental increase HR 1.28, 95% CI 1.21–1.36, p>0.001), and multivariate analysis adjusting for other known predictors of outcome (HR 1.27, 95% CI 1.18–1.37, p>0.001).

Proportional hazards models

Variable	Hazard Ratio	CI (lower)	CI (upper)	P-value
Hypertension	0.97	0.79	1.19	0.743
Age over 75	2.16	1.8	2.6	<0.001
Age over 65	2.50	1.97	3.18	<0.001
Diabetes	1.25	1.03	1.51	0.022
Stroke	1.87	1.53	2.28	<0.001
Vascular disease	1.87	1.97	3.18	<0.001
Female sex	0.79	0.6	1.03	0.077

Univariate Cox proportional hazards models for the variables included in the CHA2DS2-VASC score. Congestive heart failure criterion not included, as all cases in this cohort of CRT patients have it.



Kaplan Meier curve

Conclusion: A higher CHA2DS2-VASC score correlates to worse survival in this cohort of CRT patients. Although not all criteria included in the score is correlated to risk, the total score fairly well separates high and low-risk patients.

P1951
Effects of biventricular pacing on ventricular arrhythmia risk in asymptomatic heart failure patients with ischemic cardiomyopathy

B. Quesada Ocete[1], A. Quesada Dorador[2], H.U. Klein[3], S. McNitt[3], J. Jimenez-Bello[2], F.J. Quesada Ocete[2], W. Zareba[3], S.D. Solomon[4], I. Goldenberg[5], A.J. Moss[3], V. Kutyifa[3]. *[1]University Medical Center of Mainz, Department of Cardiology, Mainz, Germany; [2]University General Hospital of Valencia, Cardiology, Valencia, Spain; [3]University of Rochester Medical Center, Rochester, United States of America; [4]Brigham and Women's Hospital, Boston, United States of America; [5]Sheba Medical Center, Ramat Gan, Israel.* On behalf of MADIT CRT Investigators

Background/Introduction: Cardiac Resynchronization Therapy (CRT) has shown in several studies to reduce the risk of ventricular tachyarrhythmia (VTA), however, the effects of CRT on VTA in asymptomatic patients - New York Heart Association (NYHA) I with ischemic cardiomyopathy (ICM) has not yet been studied.
Purpose: We sought to evaluate the effects of CRT on VTA risk in patients with ICM enrolled in Multicenter Automatic Defibrillator Implantation Trial with Cardiac Resynchronization Therapy (MADIT-CRT), by baseline NYHA Class I vs. II.
Methods: The MADIT-CRT trial enrolled patients with reduced left ventricular function (LVEF ≤30%) and prolonged QRS≥130ms, and patients with non-ICM (NYHA Class II), or ICM and either a NYHA class I or NYHA class II. Of the 999 patients with ICM, 265 (26.5%) were classified as NYHA class I, 152 of them had a CRT-D. Among the NYHA Class II ischemic subjects, 446 patients were implanted with a CRT-D. Patients had an ambulatory follow-up 1 month after CRT-D or implantable cardioverter defibrillator alone (ICD) implantation and every 3 months thereafter until the termination of the trial.
Results: The incidence of spontaneous VTA was 25.7% in the ICD-only group and 23.8% in the CRT-D group in NYHA Class I patients. In NYHA Class II patients, ventricular tachyarrhythmias occurred in 28.8% in the ICD-only group and 24.3% in the CRT-D group. These differences were not statistically significant. Kaplan-Meier analysis showed a trend towards a lower cumulative probability of VT/VF/death in NYHA class II patients (Figure 1A), but this finding was not observed in NYHA class I patients (Figure 1B), even in patients with left bundle branch block (LBBB) (Figure 1C). In multivariate analysis, no significant effect of CRT on the risk of VT/VF was present in NYHA Class I patients (HR: 0.94, CI: 0.57–1.53, p=0.793) or in NYHA Class II patients (HR: 0.79, IC: 0.59–1.06, p=0.113) with LBBB, as compared to ICD alone.

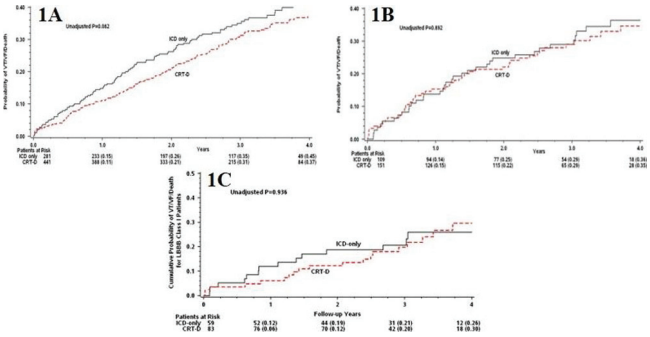


Figure 1. Kaplan-Meier analysis

Conclusions: In asymptomatic (NYHA class I) and moderately symptomatic heart failure patients (NYHA class II) with ischemic cardiomyopathy, CRT-D was not associated with a lower risk of ventricular arrhythmia events in comparison with ICD-only patients, enrolled in MADIT-CRT.
Funding Acknowledgements: Boston Scientific gave research grant to the University of Rochester in support of the MADIT clinical trials

RISK STRATIFICATION IN CONGENITAL HEART DISEASE

2106
Repeated measurements of cardiac biomarkers for risk prediction in pulmonary arterial hypertension associated with congenital heart disease: a 10-year observational cohort study

A.C. Van Dissel[1], A.H. Zwinderman[2], A.P.J. Van Dijk[3], A.L. Duijnhouwer[3], B.J.M. Mulder[1], B.J. Bouma[1]. *[1]Academic Medical Center of Amsterdam, Cardiology, Amsterdam, Netherlands; [2]Academic Medical Center of Amsterdam, Clinical Epidemiology, Biostatistics and Bioinformatics, Amsterdam, Netherlands; [3]Radboud University Medical Centre, Cardiology, Nijmegen, Netherlands*

Background: Pulmonary arterial hypertension (PAH) is a chronic, fatal complication of congenital heart disease (CHD). Advances in medical treatment have led to increased survival of PAH-CHD patients. Risk stratification remains challenging. Compared with only single-moment biomarker measurement, repeated biomarker measurements may carry important additional information regarding the prognosis.
Purpose: We sought to investigate the use of repeated cardiac biomarker measurements for risk prediction in PAH-CHD.

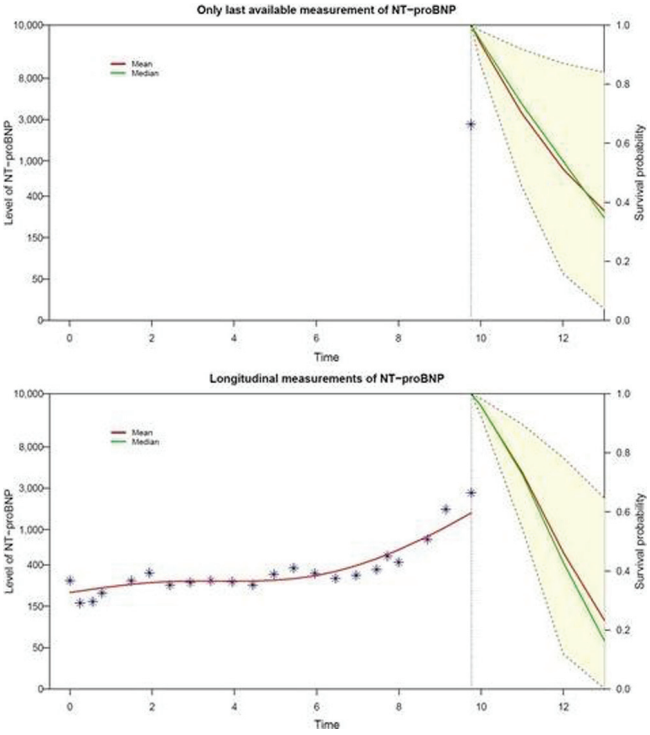


Figure 1. Dynamic survival predictions for a single subject by NT-proBNP measurements: the upper panel shows the probability that patient will survive for the next 2.5 years is 40% when using only the last available measurement (asterisk) at 9.8 years follow-up (dotted vertical line), the lower panel shows the probability of the same patient is only 20% when using all repeated biomarker measurements (asterisks).