

Supplemental Material

Table S1. Predictors of MACE in patients with an ejection fraction >35% in a selected model including RURE.

Variable	Univariate		Stepwise Multivariable	
	HR (95% CI)	<i>p</i>	HR (95% CI)	<i>p</i>
Age (years)	1.05 (1.02-1.08)	<0.001	1.04 (1.01-1.07)	0.006
Male sex	0.53 (0.30-0.96)	0.035	-	-
Current smoking	0.46 (0.23-0.92)	0.027	-	-
Diabetes mellitus	2.75 (1.55-4.86)	0.001	-	-
Hypertension	2.14 (1.00-4.58)	0.049	-	-
Killip class on admission	1.87 (1.33-2.63)	<0.001	-	-
Number of diseased vessels	1.59 (1.13-2.24)	0.009	1.61 (1.09-2.38)	0.016
LV ejection fraction (%)	0.96 (0.92-0.99)	0.013	-	-
Infarct size (% LV)	1.03 (1.00-1.05)	0.029	-	-
CURE < 0.84 *	2.57 (1.41-4.68)	0.002	1.99 (1.06-3.74)	0.034
RURE < 0.75 *	1.44 (0.82-2.53)	0.211	-	-

*The cutoffs for CURE and RURE are median values in the study population.

95% CI = confidence interval, CURE = circumferential uniformity ratio estimate, HR = hazard ratio, LV = left ventricular, % LV = percentage of left ventricular mass

Table S2. Predictors of MACE in univariate and multivariable Cox regression analysis including uniformity ratio estimates as continuous variables.

Variable	Univariate		Stepwise multivariable	
	HR (95% CI)	<i>p</i>	HR (95% CI)	<i>p</i>
Age (years)	1.05 (1.03-1.07)	<0.001	1.04 (1.02-1.07)	0.002
Male sex	0.59 (0.37-0.96)	0.032	-	-
Current smoking	0.53 (0.31-0.90)	0.018	-	-
Diabetes mellitus	1.93 (1.20-3.12)	0.007	-	-
Hypertension	2.36 (1.24-4.48)	0.009	-	-
Killip class on admission	2.04 (1.61-2.58)	<0.001	1.47 (1.05-2.04)	0.024
Number of diseased vessels	1.51 (1.15-2.00)	0.004	-	-
LV ejection fraction (%)	0.94 (0.92-0.96)	<0.001	0.94 (0.92-0.97)	<0.001
Infarct size (% LV)	1.03 (1.01-1.05)	<0.001	-	-
Microvascular obstruction (% LV)	1.09 (1.03-1.15)	0.003	-	-
CURE (per 1 SD change)	0.67 (0.59-0.77)	<0.001	-	-
RURE (per 1 SD change)	0.66 (0.54-0.82)	<0.001	-	-

95% CI = confidence interval, CURE = circumferential uniformity ratio estimate, HR = hazard ratio, LV = left ventricular, % LV = percentage of left ventricular mass, RURE = radial uniformity ratio estimate, SD = standard deviation

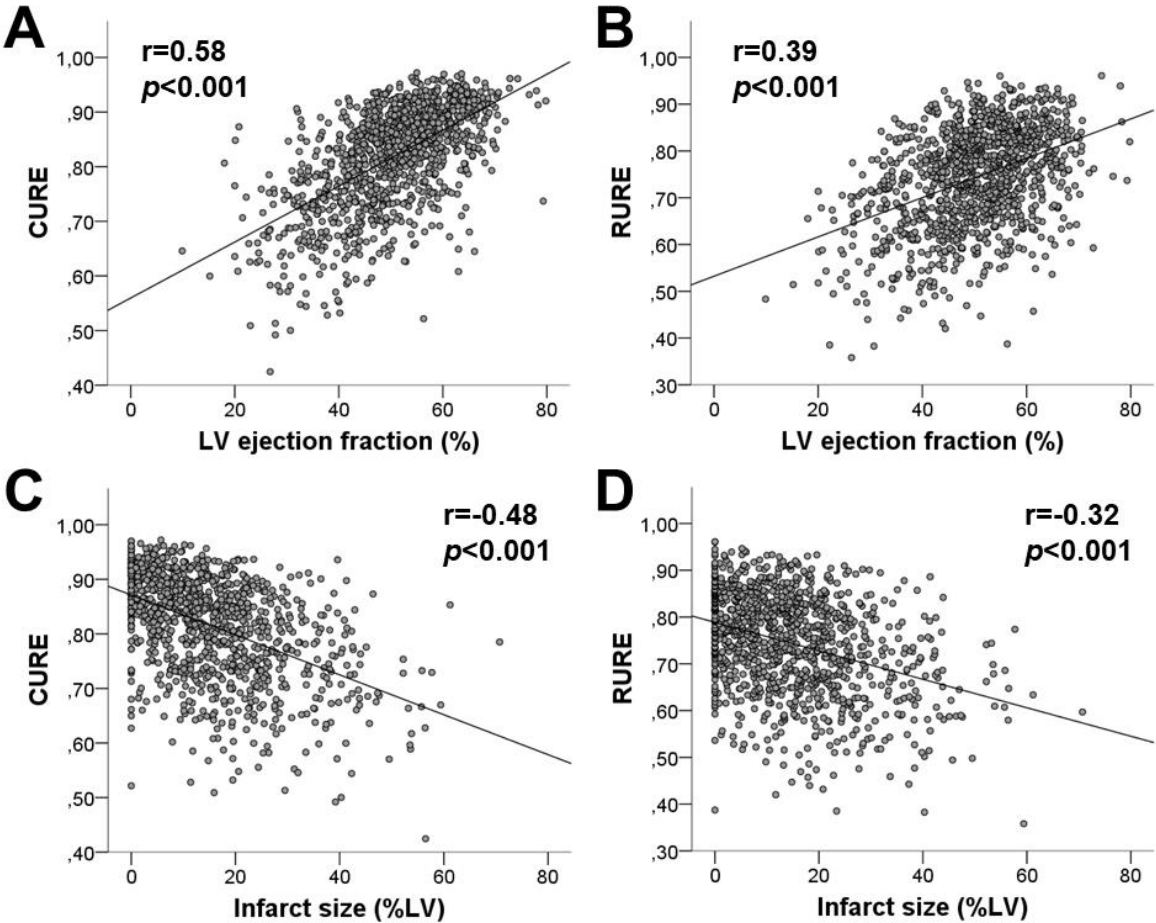
Table S3. Predictors of MACE in patients with an ejection fraction >35% including uniformity ratio estimates as continuous variables.

Variable	Univariate		Stepwise multivariable	
	HR (95% CI)	<i>p</i>	HR (95% CI)	<i>p</i>
Age (years)	1.05 (1.02-1.08)	<0.001	1.04 (1.01-1.07)	0.005
Male sex	0.53 (0.30-0.96)	0.035	-	-
Current smoking	0.46 (0.23-0.92)	0.027	-	-
Diabetes mellitus	2.75 (1.55-4.86)	0.001	-	-
Hypertension	2.14 (1.00-4.58)	0.049	-	-
Killip class on admission	1.87 (1.33-2.63)	<0.001	-	-
Number of diseased vessels	1.59 (1.13-2.24)	0.009	1.62 (1.10-2.39)	0.014
LV ejection fraction (%)	0.96 (0.92-0.99)	0.013	-	-
Infarct size (% LV)	1.03 (1.00-1.05)	0.029	-	-
CURE (per 1 SD change)	0.71 (0.59-0.85)	<0.001	0.71 (0.54-0.92)	0.009

95% CI = confidence interval, CURE = circumferential uniformity ratio estimate, HR = hazard ratio, LV = left ventricular, % LV = percentage of left ventricular mass, SD = standard deviation

RURE per 1 standard deviation change was not significant in univariate analysis (HR 0.77, 95% CI 0.58-1.02; *p*=0.064) and therefore not included in the adjusted, multivariable model. A selected multivariable model with RURE did not change the overall results with age, number of diseased vessels, and CURE emerging as predictors of MACE.

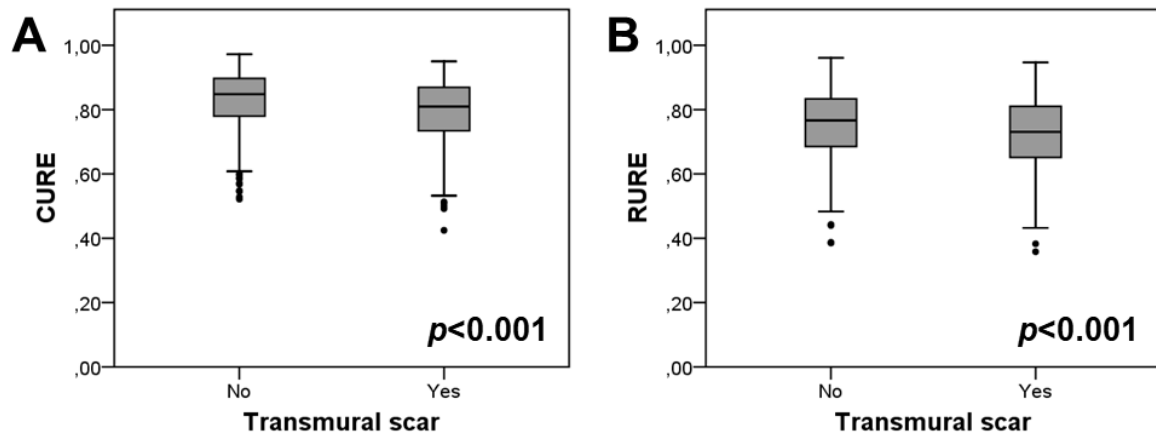
Figure S1. Correlation between CURE and RURE with left ventricular ejection fraction and infarct size.



Uniformity ratio estimates correlated significantly with LV ejection fraction (A, B) and infarct size (C, D).

CURE = circumferential uniformity ratio estimate, LV = left ventricular; %LV = percentage of left ventricular mass; RURE = radial uniformity ratio estimate.

Figure S2. Association of CURE and RURE with scar transmurality.

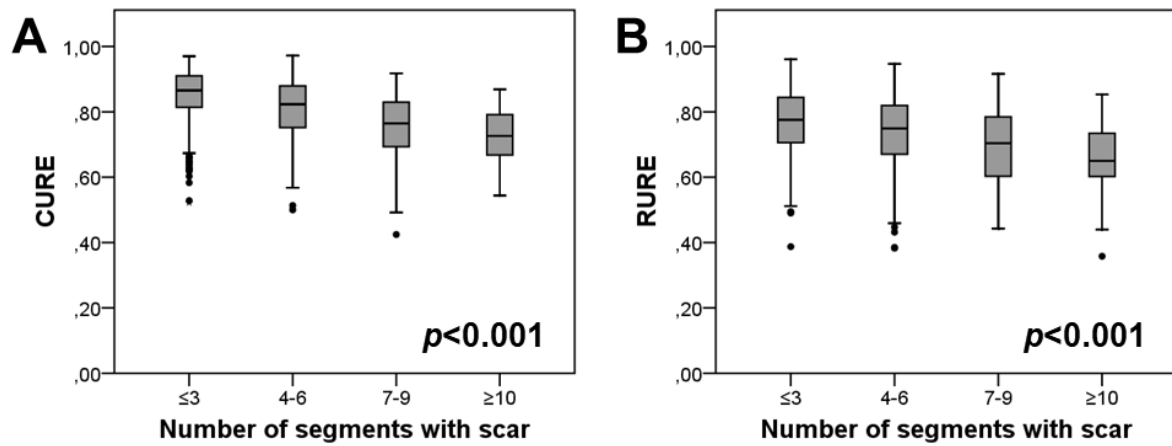


Patients with transmural infarction had significantly lower CURE (A) and RURE (B) compared to patients without transmural scars [CURE 0.81 (IQR 0.73 to 0.87) versus 0.85 (IQR 0.78 to 0.90), $p < 0.001$; RURE 0.73 (IQR 0.65 to 0.81) versus 0.77 (IQR 0.69 to 0.83), $p < 0.001$].

Uniformity ratio estimates are illustrated with Box (25th percentile, median, 75th percentile) and whisker (10th and 90th percentile) plots. P-values were calculated with the Mann-Whitney U test.

CURE = circumferential uniformity ratio estimate, IQR = interquartile range; RURE = radial uniformity ratio estimate.

Figure S3. Association of CURE and RURE with the number of infarcted left ventricular segments.



CURE (A) and RURE (B) decreased significantly with an increasing number of infarcted left ventricular segments.

Uniformity ratio estimates are illustrated with Box (25th percentile, median, 75th percentile) and whisker (10th and 90th percentile) plots. P-values were calculated with the Kruskal-Wallis test.

CURE = circumferential uniformity ratio estimate, RURE = radial uniformity ratio estimate.