

SUPPLEMENTARY DATA

**Effect of Saxagliptin on Renal Outcomes in the SAVOR TIMI-53 study-
Appendixes:**

Supplementary Appendix Table 1. Number and % of patients at the saxagliptin and placebo arms, according to eGFR and on treatment ACR groups at baseline, 1 year, and EOT

n (% from ACR by treatment arm)	eGFR>50 ml/min/BSA					
	ACR<30 Mg/G		30≤ACR≤300 Mg/G		ACR>300 Mg/G	
	saxagliptin	placebo	saxagliptin	placebo	saxagliptin	placebo
baseline	4365 (65.3%)	4326 (65.2%)	1805 (27.0%)	1819 (27.4%)	513 (7.7%)	491 (7.4%)
1 year	3847 (68.7%)	3566 (65.3%)	1333 (23.8%)	1454 (26.6%)	418 (7.5%)	442 (8.1%)
EOT	3311 (65.8%)	3063 (62.9%)	1328 (26.4%)	1379 (28.3%)	390 (7.8%)	427 (8.8%)

n (% from ACR by treatment arm)	30≤eGFR≤50 ml/min/BSA					
	ACR<30 Mg/G		30≤ACR≤300 Mg/G		ACR>300 Mg/G	
	saxagliptin	placebo	saxagliptin	placebo	saxagliptin	placebo
baseline	470 (44.0%)	474 (44.8%)	362 (33.9%)	346 (32.7%)	237 (22.2%)	239 (22.6%)
1 year	357 (42.9%)	369 (46.2%)	313 (37.6%)	253 (31.7%)	162 (19.5%)	177 (22.2%)
EOT	295 (41.7%)	279 (41.0%)	265 (37.5%)	230 (33.8%)	147 (20.8%)	172 (25.3%)

n (% from ACR by treatment arm)	eGFR<30 ml/min/BSA					
	ACR<30 Mg/G		30≤ACR≤300 Mg/G		ACR>300 Mg/G	
	saxagliptin	placebo	saxagliptin	placebo	saxagliptin	placebo
baseline	32 (19.5%)	29 (19.5%)	50 (30.5%)	44 (29.5%)	82 (50.0%)	76 (51.0%)
1 year	23 (19.2%)	26 (23.2%)	47 (39.2%)	28 (25.0%)	50 (41.7%)	58 (51.8%)
EOT	20 (19.6%)	18 (20.5%)	39 (38.2%)	27 (30.7%)	43 (42.2%)	43 (48.9%)

(Abbreviations: BSA Body Surface area per 1.73 m²)

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Supplementary Appendix Table 2. Multivariable Analysis of the association between baseline variables and ACR and eGFR as continuous variable at baseline

Variable*	Multivariable Modeling for log(ACR) (mg/g) at baseline			Multivariable Modeling for eGFR (mL/min/BSA) at baseline		
	Coefficient	95% CI	P-value	Coefficient	95% CI	P-value
Age (increase by a year)	0.0015	(-0.0019, 0.0050)	0.3855	-0.7425	(-0.7838, -0.7011)	<.0001
Sex (Male vs. Female)		NS		5.0366	(4.3397, 5.7334)	<.0001
Race (Caucasian vs. all other)	-0.3712	(-0.4348, -0.3076)	<.0001	-0.7842	(-1.5914, 0.0230)	0.0569
Hispanic or Latino (vs. not)	0.3113	(0.2456, 0.3770)	<.0001	3.0296	(2.2090, 3.8501)	<.0001
BMI (kg/m ²)		NS		-0.2121	(-0.2735, -0.1506)	<.0001
Duration of diabetes (for each extra year)	0.0184	(0.0151, 0.0218)	<.0001	-0.1087	(-0.1497, -0.0677)	<.0001
Current smoker		NS		3.1464	(2.1880, 4.1049)	<.0001
History of CVD	0.2050	(0.1411, 0.2689)	<.0001	-1.4584	(-2.2857, -0.6311)	0.0005
HbA1C% (unit increase in HbA1c)	0.1857	(0.1618, 0.2097)	<.0001	0.4320	(0.1374, 0.7266)	0.0041
Fasting PG (mg/dl for each unit increase)	0.0010	(0.0005, 0.0016)	0.0003	0.0179	(0.0109, 0.0248)	<.0001
eGFR (ml/min/BSA)	-0.0151	(-0.0164, -0.0138)	<.0001			
ACR (analyzed on a log scale for each percentage point increase for the ACR, the GFR decreases by 2.7)		NA		-2.3757	(-2.5662, -2.1851)	<.0001
ACE inhibitors	0.0780	(0.0157, 0.1403)	0.0141		NS	
ARBs	0.2455	(0.1764, 0.3146)	<.0001	-1.8087	(-2.5251, -1.0924)	<.0001
B-Blockers		NS		-2.9851	(-3.6860, -2.2841)	<.0001
Statin		NS		-1.0403	(-1.8543, -0.2264)	0.0122
Aspirin		NS			NS	
Sulfonylurea	-0.0303	(-0.0881, 0.0276)	0.3055	-0.9703	(-1.6753, -0.2654)	0.0070
Metformin	-0.0340	(-0.0943, 0.0262)	0.2687	7.8730	(7.1487, 8.5973)	<.0001
Insulin	0.2701	(0.2045, 0.3356)	<.0001	-1.6524	(-2.4561, -0.8488)	<.0001
Thiazolidinediones	-0.0571	(-0.1682, 0.054)	0.3138		NS	

(Abbreviations: BSA Body Surface area **per 1.73 m²**)

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Supplementary Appendix Table 3. Change in categorical ACR (<15mg/g, ≥15 and<30 mg/g, 30-<100 mg/g, 100-300 mg/g, >300 mg/g) from baseline to EOT by baseline ACR categories and treatment arms

		ACR (Mg/G) at EOT									
		SAXAGLIPTIN					PLACEBO				
		<15	≥15-<30	≥30-<100	≥100-≤300	>300	<15	≥15-<30	≥30-<100	≥100-≤300	>300
ACR (Mg/G) at baseline	<15 P*= 0.019	2204 75.5%	410 14.0%	246 8.4%	43 1.5%	17 0.6%	2056 72.8%	447 15.8%	247 8.7%	60 2.1%	15 0.5%
	≥15-<30 P**= 0.090	323 39.2%	215 26.1%	219 26.6%	47 5.7%	19 2.3%	273 33.5%	217 26.6%	260 31.9%	50 6.1%	16 2.0%
	≥30-<100 P**<0.001	193 18.5%	181 17.4%	434 41.6%	184 17.6%	51 4.9%	144 14.5%	159 16.1%	395 39.9%	205 20.7%	87 8.8%
	≥100-≤300 P**=0.043	38 7.3%	39 7.5%	137 26.4%	174 33.6%	130 25.1%	25 4.9%	24 4.7%	136 26.4%	168 32.6%	162 31.5%
	>300 P***=0.049	13 2.4%	10 1.9%	45 8.4%	103 19.3%	363 68.0%	9 1.8%	6 1.2%	28 5.7%	87 17.7%	362 73.6%

*P-value is based on a two tailed normal distribution approximation test for the proportion of patients who worsened

** P-value is based on a chi-squared test for independence

***P-value is based on a two tailed normal distribution approximation test for the proportion of patients who improved

P-values were calculated for each level of ACR at baseline separately.

White: The number of patients (%) at each ACR category at baseline, with no change in ACR category to EOT.

Very Light Green: The number of patients (%) at each ACR category at baseline, with improvement in one ACR category to EOT.

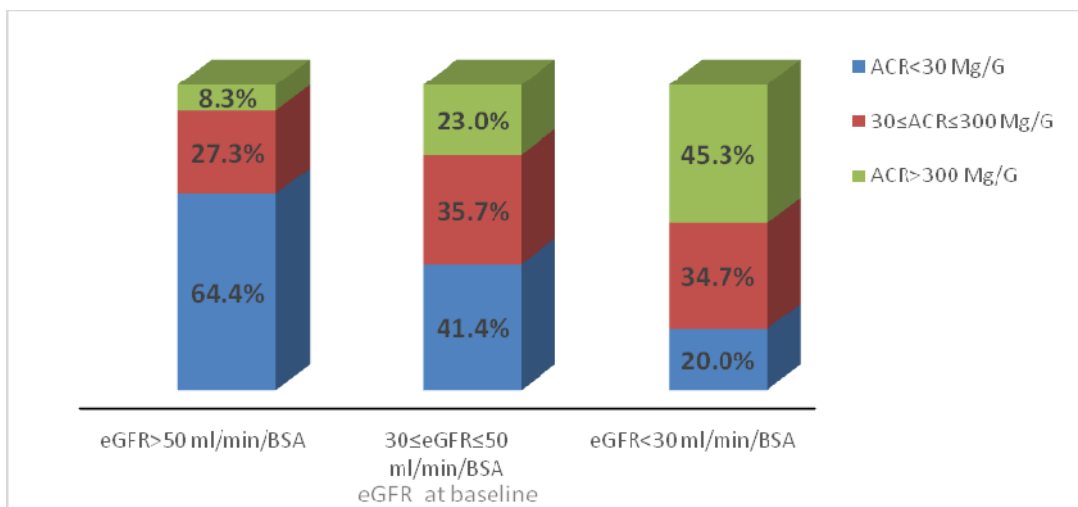
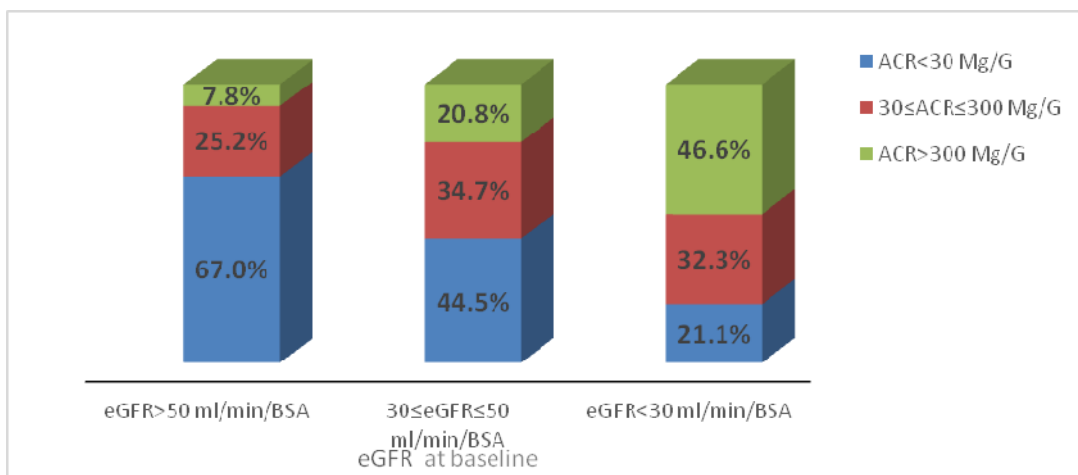
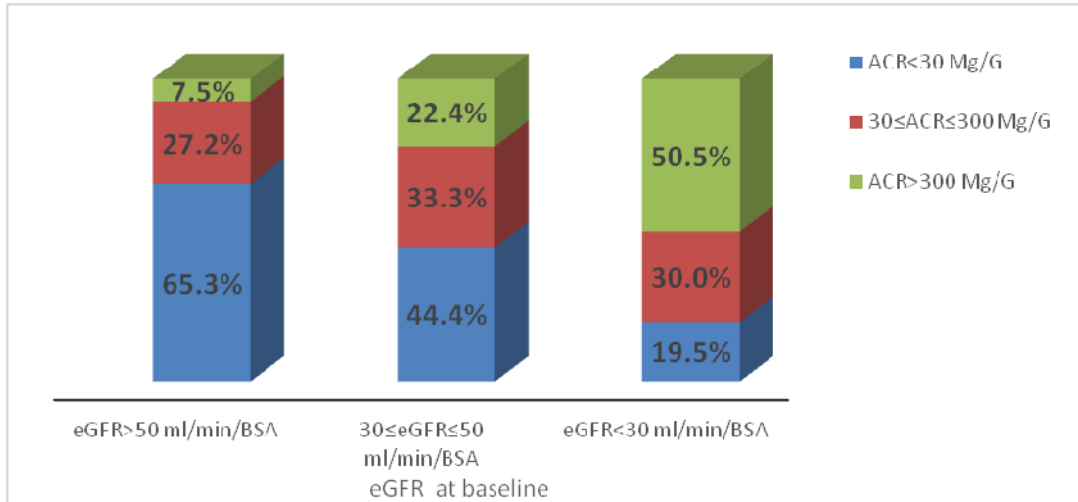
Light Green: The number of patients (%) at each ACR category at baseline, with improvement in two ACR categories to EOT.

Moderate Green: The number of patients (%) at each ACR category at baseline, with improvement in three ACR categories to EOT.

Dark Green: The number of patients (%) at each ACR category at baseline, with improvement in four ACR categories to EOT.

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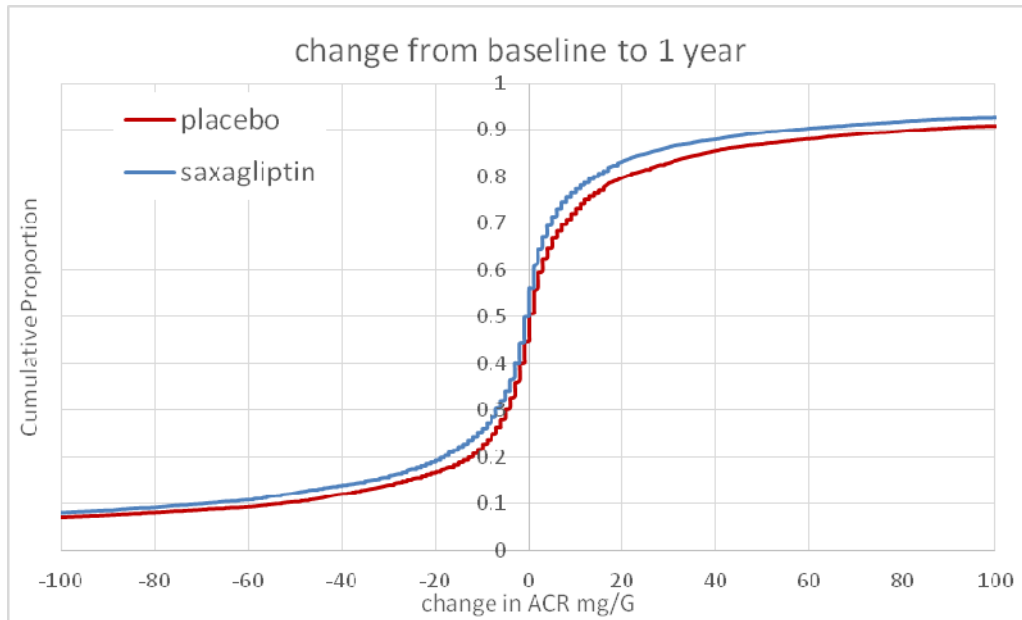
Supplementary Appendix Figure 1. Percentage of patients at the different on treatment ACR (at Baseline, 1year and EOT) categories out of the patients at baseline eGFR category



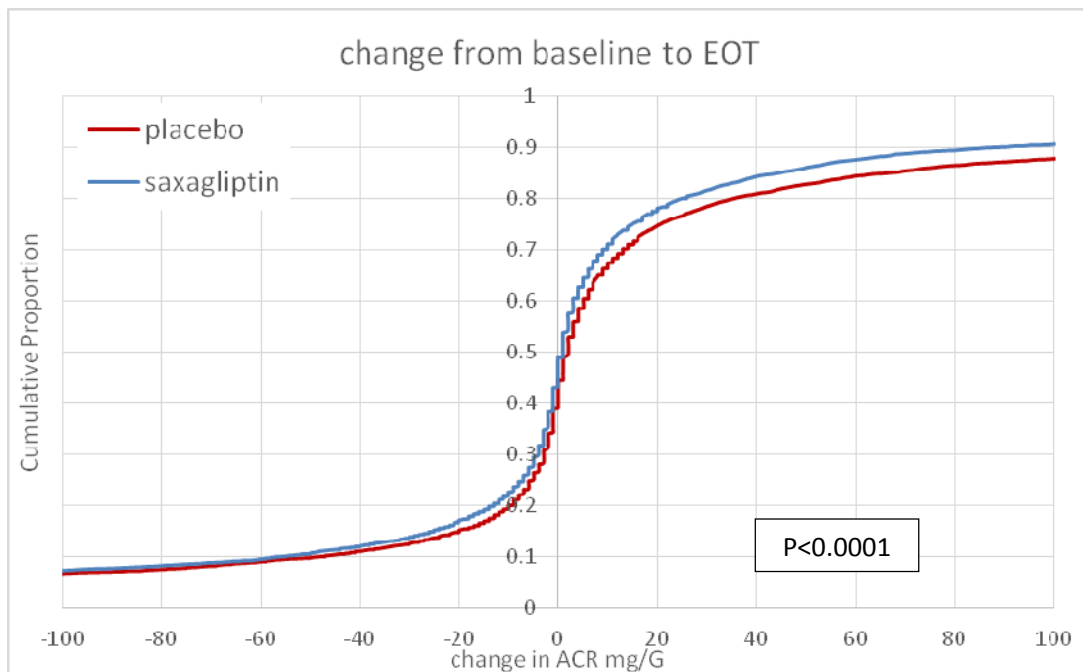
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Supplementary Appendix Figure 2. Density charts for change of ACR from baseline to 1 year and EOT, by treatment arms*

A- 1 year



B- EOT



(For visualization purposes the graph was drawn with change in ACR values cut-off between -100 and 100)