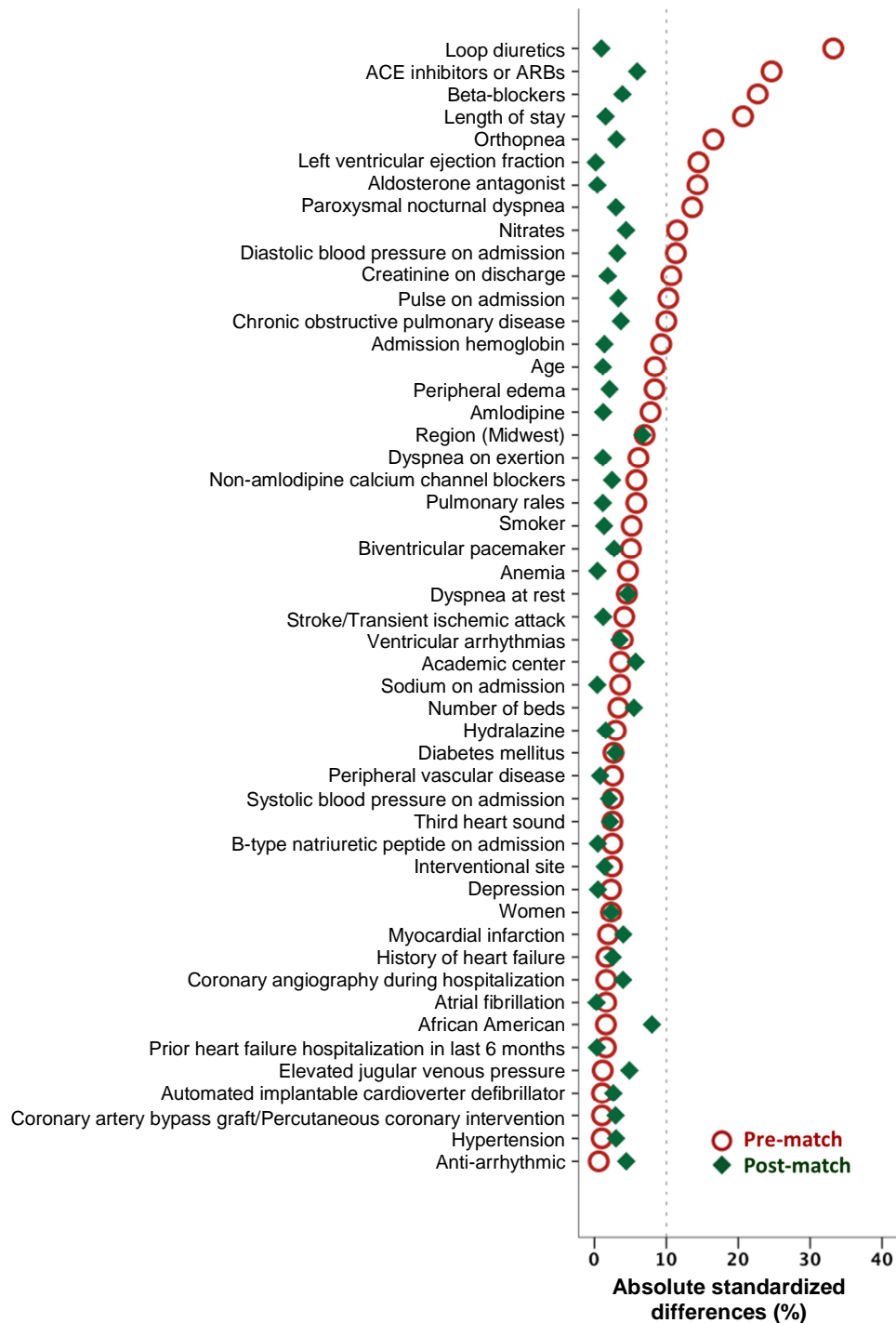
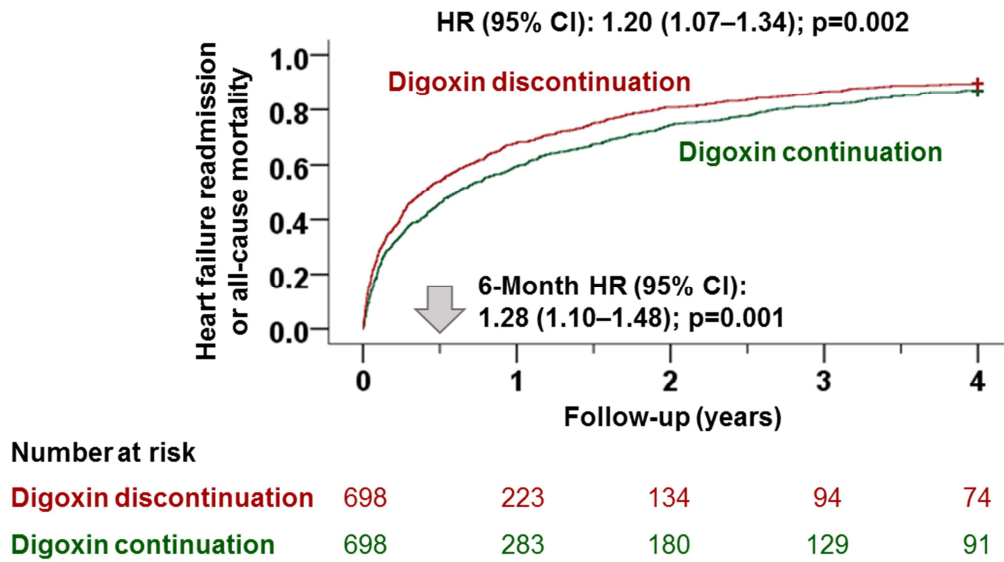


Online Figure 1. Love plot for balance in baseline characteristics



Love plot displaying absolute standardized differences comparing 50 baseline characteristics of patients with heart failure with reduced ejection fraction, by discontinuation of digoxin at discharge (ACE = angiotensin-converting enzyme, ARB = angiotensin receptor blocker)

Online Figure 2. Kaplan-Meier plot for combined endpoint by discontinuation of digoxin



Kaplan-Meier plots for the combined endpoint of heart failure readmission or all-cause mortality at 4 years by discharge discontinuation of digoxin in 698 pairs of propensity score-matched patients with heart failure with reduced ejection fraction

Online Table 1. Baseline Characteristics of Hospitalized Older Patients with Heart Failure with Reduced Ejection Fraction in the Sensitivity Cohort* by Discontinuation of Digoxin

	Before propensity score-matching (n=2,971)			After propensity score-matching (n=1,204)		
	Digoxin discontinuation			Digoxin discontinuation		
	No (n=2,349)	Yes (n=622)	P value	No (n=602)	Yes (n=602)	P value
Age (years)	75 (\pm 11)	76 (\pm 11)	0.035	77 (\pm 11)	76 (\pm 11)	0.765
Women	923 (39%)	250 (40%)	0.683	240 (40%)	238 (40%)	0.906
African American	329 (14%)	92 (15%)	0.618	89 (15%)	87 (14%)	0.870
Left ventricular ejection fraction (%)	27 (\pm 9)	28 (\pm 9)	0.001	28 (\pm 9)	28 (\pm 10)	0.434
Smoker in past 1 year	308 (13%)	66 (11%)	0.095	62 (10%)	65 (11%)	0.778
Past medical history						
Prior heart failure	2,234 (95%)	588 (95%)	0.562	569 (95%)	568 (94%)	0.900
Prior HF hospitalization in 6 months	502 (21%)	137 (22%)	0.724	125 (21%)	131 (22%)	0.673
Hypertension	1,535 (65%)	404 (65%)	0.854	404 (67%)	392 (65%)	0.465
Myocardial infarction	718 (31%)	183 (29%)	0.581	185 (31%)	179 (30%)	0.707
Coronary revascularization	919 (39%)	245 (39%)	0.904	238 (40%)	240 (40%)	0.906
Diabetes mellitus	972 (41%)	262 (42%)	0.738	256 (43%)	255 (42%)	0.954
Stroke/transient ischemic attack	367 (16%)	92 (15%)	0.609	80 (13%)	89 (15%)	0.455
Peripheral vascular disease	389 (17%)	90 (14%)	0.207	90 (15%)	89 (15%)	0.935
Atrial fibrillation	1,091 (46%)	285 (46%)	0.781	263 (44%)	281 (47%)	0.297
Ventricular arrhythmia	237 (10%)	52 (8%)	0.196	48 (8%)	50 (8%)	0.833
Implantable cardioverter defibrillator	289 (12%)	69 (11%)	0.410	63 (10%)	67 (11%)	0.710
Bi-ventricular pacemaker	201 (9%)	44 (7%)	0.232	41 (7%)	43 (7%)	0.821
Chronic obstructive pulmonary disease	695 (30%)	155 (25%)	0.022	150 (25%)	155 (26%)	0.740
Anemia	358 (15%)	82 (13%)	0.199	97 (16%)	81 (13%)	0.194
Depression	218 (9%)	61 (10%)	0.689	49 (8%)	55 (9%)	0.538
Admission findings						
Dyspnea at rest	1,023 (44%)	257 (41%)	0.318	234 (39%)	250 (42%)	0.347
Dyspnea on exertion	1,474 (63%)	374 (60%)	0.231	375 (62%)	362 (60%)	0.442
Orthopnea	725 (31%)	144 (23%)	<0.001	144 (24%)	142 (24%)	0.892
Paroxysmal nocturnal dyspnea	440 (19%)	83 (13%)	0.002	79 (13%)	83 (14%)	0.736
Jugular venous pressure elevation	827 (35%)	214 (34%)	0.710	195 (32%)	209 (35%)	0.393

Online Table 1. Baseline Characteristics of Hospitalized Older Patients with Heart Failure with Reduced Ejection Fraction in the Sensitivity Cohort* by Discontinuation of Digoxin

	Before propensity score-matching (n=2,971)			After propensity score-matching (n=1,204)		
	Digoxin discontinuation		P value	Digoxin discontinuation		P value
	No (n=2,349)	Yes (n=622)		No (n=602)	Yes (n=602)	
Third heart sound	314 (13%)	80 (13%)	0.741	76 (13%)	74 (12%)	0.861
Pulmonary rales	1,469 (63%)	363 (58%)	0.057	339 (56%)	353 (59%)	0.414
Peripheral edema	1,467 (62%)	409 (66%)	0.129	378 (63%)	398 (66%)	0.229
Pulse (beats per minute)	85 (\pm 20)	83 (\pm 20)	0.011	83 (\pm 20)	83 (\pm 20)	0.812
Systolic blood pressure (mmHg)	133 (\pm 28)	134 (\pm 30)	0.466	135 (\pm 29)	134 (\pm 30)	0.503
Diastolic blood pressure (mmHg)	74 (\pm 18)	71 (\pm 18)	0.002	71 (\pm 17)	72 (\pm 18)	0.711
Laboratory findings						
Admission serum sodium (mEq/L)	137 (\pm 9)	136 (\pm 13)	0.092	136 (\pm 11)	136 (\pm 13)	0.810
Admission hemoglobin (g/dL)	12 (\pm 3)	12 (\pm 2)	0.026	12 (\pm 2)	12 (\pm 2)	0.532
Admission serum BNP (pg/mL)	1,407 (\pm 1,148)	1,444 (\pm 1,086)	0.472	1,364 (\pm 1,075)	1,433 (\pm 1,071)	0.265
Admission creatinine (mg/dL)	1.6 (\pm 1.0)	1.7 (\pm 1.2)	0.004	1.7 (\pm 1.3)	1.7 (\pm 1.1)	0.901
Discharge creatinine (mg/dL)	1.6 (\pm 0.9)	1.7 (\pm 1.0)	0.006	1.6 (\pm 1.0)	1.7 (\pm 0.9)	0.708
Admission-to-discharge change in creatinine	-0.04 (\pm 0.6)	-0.06 (\pm 0.9)	0.408	-0.08 (\pm 0.8)	-0.07 (\pm 0.9)	0.800
Admission-to-discharge creatinine rise \geq 0.3mg/dL	330 (14%)	88 (14%)	0.949	77 (13%)	85 (14%)	0.499
Discharge medications						
ACE inhibitors or ARBs	1,679 (71%)	383 (62%)	<0.001	374 (62%)	377 (63%)	0.858
Beta-blockers	1,718 (73%)	395 (64%)	<0.001	398 (66%)	390 (65%)	0.628
Aldosterone antagonists	480 (20%)	89 (14%)	0.001	81 (13%)	89 (15%)	0.508
Loop diuretics	2,004 (85%)	456 (73%)	<0.001	447 (74%)	451 (75%)	0.791
Hydralazine	96 (4%)	22 (4%)	0.532	24 (4%)	21 (3%)	0.649
Nitrates	679 (29%)	154 (25%)	0.041	155 (26%)	152 (25%)	0.843
Amlodipine	96 (4%)	37 (6%)	0.046	35 (6%)	35 (6%)	1.000
Other calcium channel blockers	159 (7%)	39 (6%)	0.657	47 (8%)	37 (6%)	0.258
Anti-arrhythmics	414 (18%)	119 (19%)	0.384	119 (20%)	118 (20%)	0.942
Coronary angiography	199 (8%)	50 (8%)	0.729	51 (8%)	49 (8%)	0.835

Online Table 1. Baseline Characteristics of Hospitalized Older Patients with Heart Failure with Reduced Ejection Fraction in the Sensitivity Cohort* by Discontinuation of Digoxin

	Before propensity score-matching (n=2,971)			After propensity score-matching (n=1,204)		
	Digoxin discontinuation		P value	Digoxin discontinuation		P value
	No (n=2,349)	Yes (n=622)		No (n=602)	Yes (n=602)	
Hospital length of stay (days)	5.6 (\pm 5.1)	7.0 (\pm 8.3)	<0.001	6.5 (\pm 6.9)	6.5 (\pm 5.6)	0.993
Hospital characteristics						
Region			0.009			0.946
Midwest	779 (33%)	199 (32%)		190 (32%)	192 (32%)	
Northeast	385 (16%)	76 (12%)		77 (13%)	76 (13%)	
South	800 (34%)	217 (35%)		218 (36%)	210 (35%)	
West	385 (16%)	130 (21%)		117 (19%)	124 (21%)	
Size (number of beds)	415 (\pm 236)	415 (\pm 233)	0.947	413 (\pm 233)	417 (\pm 234)	0.769
Interventional center	1,868 (80%)	499 (80%)	0.699	486 (81%)	484 (80%)	0.884
Academic center	1,168 (50%)	298 (48%)	0.421	292 (49%)	288 (48%)	0.818

*The sensitivity cohort was also accounted for admission and discharge serum creatinine, and incident acute kidney injury during hospital stay, all of which were balanced after matching. Values are n (%) or mean \pm standard deviation; p values comparing medians are based on nonparametric independent sample median test.

ACE = angiotensin-converting enzyme; ARB = angiotensin receptor blocker; BNP = B-type natriuretic peptide; HF = heart failure

Online Table 2. Outcomes in 1,204 Propensity Score-Matched Hospitalized Patients with Heart Failure (HF) with Reduced Ejection Fraction in the Sensitivity Cohort* by Digoxin Discontinuation at Hospital Discharge

	Events (%) for digoxin discontinuation at hospital discharge		Hazard ratio associated with digoxin discontinuation (95% CI); p value
	No (n=602)	Yes (n=602)	
<u>30-day outcomes</u>			
HF readmission	67 (11%)	93 (15%)	1.45 (1.06–1.99); p=0.020
All-cause readmission	162 (27%)	173 (29%)	1.11 (0.90–1.38); p=0.326
All-cause mortality	39 (6%)	66 (11%)	1.73 (1.17–2.57); p=0.007
HF readmission or all-cause mortality	102 (17%)	148 (25%)	1.51 (1.17–1.94); p=0.001
<u>6-month outcomes</u>			
HF readmission	188 (31%)	220 (37%)	1.30 (1.07–1.57); p=0.009
All-cause readmission	341 (57%)	358 (59%)	1.15 (0.99–1.34); p=0.063
All-cause mortality	144 (24%)	186 (31%)	1.36 (1.10–1.70); p=0.005
HF readmission or all-cause mortality	279 (46%)	330 (55%)	1.30 (1.11–1.53); p=0.001
<u>1-year outcomes</u>			
HF readmission	241 (40%)	278 (46%)	1.31 (1.10–1.56); p=0.002
All-cause readmission	417 (69%)	423 (70%)	1.14 (1.00–1.31); p=0.052
All-cause mortality	213 (35%)	253 (42%)	1.27 (1.06–1.53); p=0.010
HF readmission or all-cause mortality	356 (59%)	413 (69%)	1.31 (1.14–1.51); p<0.001
<u>4-year outcomes</u>			
HF readmission	336 (56%)	355 (59%)	1.26 (1.08–1.46); p=0.003
All-cause readmission	517 (86%)	505 (84%)	1.15 (1.02–1.30); p=0.026
All-cause mortality	438 (73%)	449 (75%)	1.12 (0.98–1.28); p=0.098
HF readmission or all-cause mortality	530 (88%)	543 (90%)	1.22 (1.08–1.38); p=0.001

*The sensitivity cohort was also accounted for admission and discharge serum creatinine, and incident acute kidney injury during hospital stay, all of which were balanced after matching.