

Online Figure 1. Timeline for measuring patient characteristics, adherence and mortality.

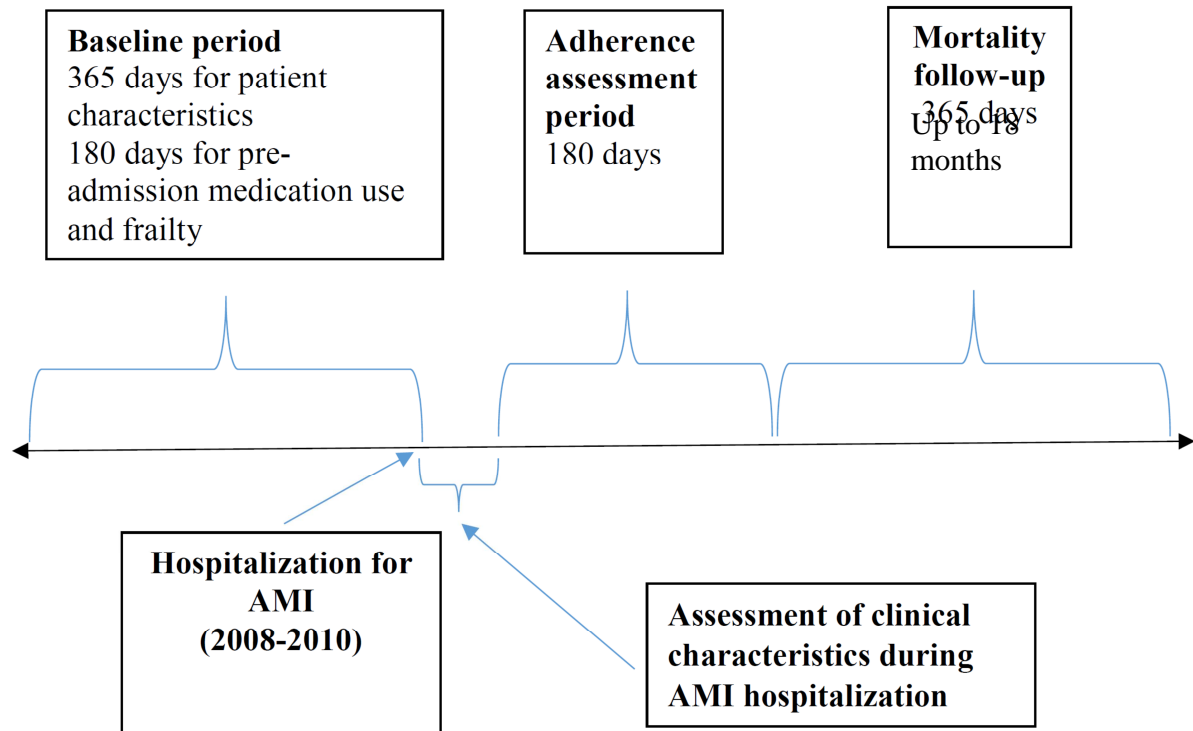
Online Table 1. Baseline characteristics of the study cohort stratified by adherence to the three classes of preventive therapies.

Online Table 2. Hazard ratios (95% confidence intervals) of all-cause mortality by adherence category in the whole study cohort and various subgroup stratified by presence heart failure, diabetes and dementia, and age and sex.

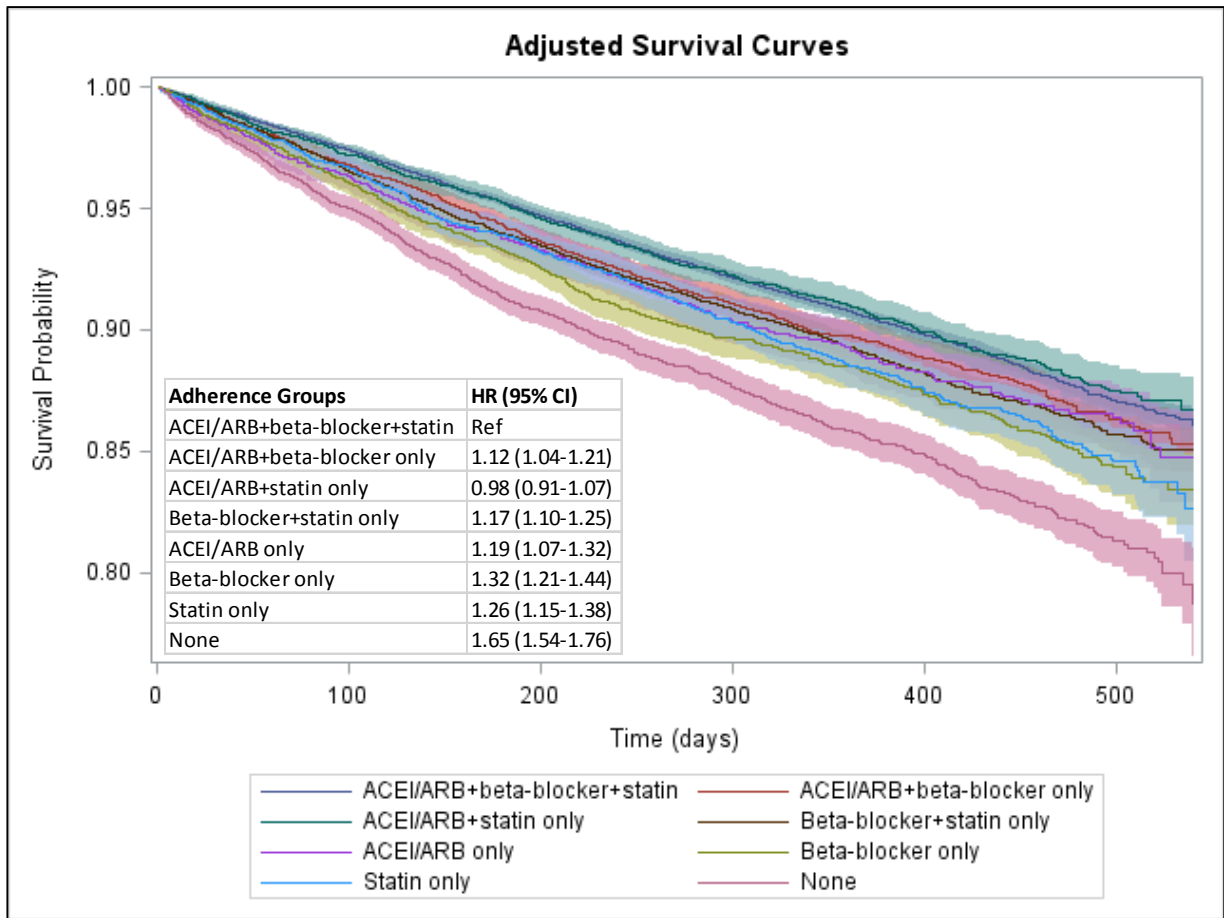
Online Table 3. Sensitivity analysis by additionally controlling for polypharmacy and medication dose

Online Table 4. Proportional hazard assumption test (Pearson correlation test of Schoenfeld residuals with time)

Online Figure 1. Timeline for measuring patient characteristics, adherence and mortality.
AMI = acute myocardial infarction.



Online Figure 2.



Online Table 1. Baseline characteristics of the study cohort stratified by adherence to the three classes of preventive therapies

	Cohort	Adherent to							
		All three therapies	ACEI/ARB + beta-blocker only	ACEI/ARB + statin only	Beta-blocker + statin only	ACEI/ARB only	Beta-blocker only	Statin only	None
N (%)	90869 (100%)	44051 (48.5%)	8269 (9.1%)	7242 (8.0%)	12401 (13.6%)	3396 (3.7%)	4559 (5.0%)	4304 (4.7%)	6647 (7.3%)
<i>Socio-demographics</i>									
Age, mean (SD)	76.77 (7.24)	76.59 (7.20)	76.81 (7.23)	76.94 (7.18)	77.07 (7.25)	76.89 (7.40)	77.11 (7.28)	76.72 (7.19)	76.91 (7.49)
65-74	39572 (43.6)	19961 (44.6)	3582 (43.3)	3078 (43.1)	5105 (41.2)	1464 (43.1)	1907 (41.8)	1870 (43.5)	2905 (43.7)
75-84	36093 (39.7)	17279 (39.2)	3313 (40.1)	2907 (43.7)	5120 (41.3)	1348 (39.7)	1838 (40.3)	1738 (40.4)	2550 (38.4)
85+	15204 (16.7)	7111 (16.1)	1374 (17.6)	1257 (17.2)	2176 (17.6)	584 (17.2)	814 (17.9)	696 (16.2)	1192 (17.9)
Gender (Male)	41092 (45.2)	20005 (45.4)	3380 (40.9)	3292 (45.5)	5691 (45.9)	1407 (41.4)	1961 (43.0)	2215 (51.5)	3141 (47.3)
<i>Race</i>									
White	77243 (85.0)	37923 (86.1)	6987 (84.5)	6143 (84.8)	10795 (87.1)	2717 (80.0)	3878 (85.1)	3709 (86.2)	5091 (76.6)
Black	7253 (8.0)	3131 (7.1)	716 (8.66)	570 (7.9)	822 (6.6)	388 (11.4)	396 (8.7)	302 (7.0)	928 (14.0)
Hispanic	2644 (2.9)	1172 (2.7)	264 (3.2)	245 (3.2)	297 (2.4)	146 (4.3)	133 (2.9)	108 (2.5)	289 (4.4)
Asian	1985 (2.2)	985 (2.2)	144 (1.7)	153 (2.1)	288 (2.3)	81 (2.4)	69 (1.5)	104 (2.4)	161 (2.4)
Other	1744 (1.9)	840 (1.9)	158 (1.9)	141 (2.0)	199 (1.6)	64 (1.9)	83 (1.8)	81 (1.9)	178 (2.7)
<i>Median household income at US Census block groups of residence</i>									
≤\$30000	42846 (47.2)	20663 (46.9)	3945 (47.7)	3362 (46.4)	5655 (45.6)	1744 (51.4)	2099 (46.0)	1913 (44.5)	3465 (52.1)
\$30001-\$60000	37639 (41.4)	18383 (41.7)	3405 (41.2)	3060 (42.3)	5263 (42.4)	1286 (37.9)	1919 (42.1)	1829 (42.5)	2494 (37.5)
\$60001-\$100000	8388 (9.2)	4042 (9.2)	752 (9.09)	656 (9.06)	1207 (9.73)	283 (8.33)	452 (9.91)	446 (10.4)	550 (8.3)
\$100001-\$150000	1542 (1.7)	753 (1.7)	135 (1.6)	120 (1.7)	200 (1.6)	66 (1.9)	70 (1.5)	86 (2.0)	112 (1.7)
≥\$150001	454 (0.5)	210 (0.5)	32 (0.4)	44 (0.6)	76 (0.6)	17 (0.5)	19 (0.4)	30 (0.7)	26 (0.4)
Part D prescription drug benefit gap (“doughnut hole”)	11570 (12.7)	5928 (13.5)	996 (12.0)	950 (13.1)	1655 (13.4)	393 (11.6)	514 (11.3)	515 (12.0)	619 (9.31)
Medicare & Medicaid dual eligibility	21368 (23.5)	10760 (24.4)	1777 (21.5)	1635 (22.6)	2623 (21.2)	871 (25.7)	903 (19.8)	831 (19.3)	1968 (29.6)
<i>Clinical characteristics (within 12 months prior to index admission)</i>									
AMI	2533 (2.8)	1173 (2.7)	247 (3.0)	188 (2.6)	342 (2.8)	84 (2.5)	163 (3.6)	130 (3.0)	206 (3.1)
CABG	656 (0.7)	302 (0.7)	49 (0.6)	56 (0.8)	114 (0.9)	21 (0.6)	34 (0.8)	40 (0.9)	40 (0.6)
PCI	4340 (4.8)	2091 (4.8)	393 (4.8)	348 (4.8)	586 (4.7)	161 (4.7)	258 (5.7)	198 (4.6)	305 (4.6)
Stroke/TIA	5475 (6.0)	2466 (5.6)	488 (5.9)	463 (6.4)	757 (6.1)	211 (6.2)	334 (7.3)	281 (6.5)	475 (7.2)
Unstable Angina	3486 (3.8)	1642 (3.7)	311 (3.8)	282 (3.9)	521 (4.2)	151 (4.5)	192 (4.2)	152 (3.5)	235 (3.5)
Angina Pectoris	5656 (6.2)	2724 (6.2)	500 (6.1)	469 (6.5)	811 (6.5)	213 (6.3)	329 (7.2)	252 (5.9)	358 (5.4)
IHD	39965 (44.0)	18950 (43.0)	3739 (45.2)	3241 (44.8)	5632 (45.4)	1477 (43.5)	2185 (47.9)	1884 (43.8)	2857 (43.0)
CHF	18819 (20.7)	8701 (19.8)	1794 (21.7)	1422 (19.6)	2786 (22.5)	726 (21.4)	1039 (22.8)	838 (19.5)	1513 (22.8)
Atrial Fibrillation	8797 (9.7)	4100 (9.3)	856 (10.4)	714 (9.9)	1348 (10.9)	316 (9.3)	497 (10.9)	428 (9.9)	539 (8.1)
Hypertension	68669 (75.6)	33113 (75.2)	6465 (78.2)	5556 (76.7)	9504 (76.6)	2646 (77.9)	3588 (78.7)	3073 (71.4)	4724 (71.1)
PVD	15682 (17.3)	7289 (16.6)	1456 (17.6)	1251 (17.3)	2301 (18.6)	569 (16.8)	890 (19.5)	745 (17.3)	1181 (17.8)
Hyperlipidemia	53836 (59.3)	26203 (59.5)	4964 (60.0)	4356 (60.2)	7621 (61.5)	1915 (56.4)	2767 (60.7)	2604 (60.5)	3406 (51.2)
Diabetes	36337 (40.0)	17600 (40.0)	3369 (40.7)	2881 (39.8)	5000 (40.3)	1393 (41.0)	1913 (42.0)	1633 (38.0)	2548 (38.3)
CKD	10343 (11.4)	4483 (10.2)	867 (10.5)	753 (10.4)	1878 (15.1)	358 (10.6)	678 (14.8)	539 (12.5)	787 (11.9)
COPD	19312 (21.3)	8716 (19.8)	1791 (21.7)	1582 (21.8)	2786 (22.5)	799 (23.5)	966 (21.2)	1028 (23.9)	1643 (24.7)
Asthma	4645 (5.1)	2044 (4.6)	429 (5.2)	390 (5.4)	681 (5.49)	218 (6.4)	227 (5.0)	247 (5.7)	409 (6.2)
Liver Disease	1383 (1.5)	667 (1.5)	147 (1.8)	79 (1.1)	175 (1.4)	65 (1.9)	73 (1.60)	64 (1.49)	116 (1.8)
Cancer	9417 (10.4)	4353 (9.9)	892 (10.8)	754 (10.4)	1383 (11.2)	332 (9.8)	553 (12.1)	501 (11.6)	649 (9.8)

Continued

Online Table 1. Continued

	Cohort	Adherent to							
		All three therapies	ACEI/ARB + beta-blocker only	ACEI/ARB + statin only	Beta-blocker + statin only	ACEI/ARB only	Beta-blocker only	Statin only	None
Depression	11,825 (13.0)	5334 (12.1)	1080 (13.1)	963 (13.3)	1666 (13.7)	482 (14.2)	667 (14.6)	625 (14.5)	1018 (15.3)
Dementia*	8666 (9.5)	3155 (7.2)	575 (7.0)	606 (8.4)	910 (7.4)	329 (9.8)	395 (8.7)	370 (8.7)	773 (11.8)
Charlson Comorbidity Index									
0	27913 (30.7)	14177 (32.2)	2459 (29.7)	2200 (30.4)	3566 (28.8)	984 (29.0)	1229 (27.0)	1307 (30.4)	1991 (30.0)
1-2	36199 (39.8)	17659 (40.1)	3333 (40.3)	2956 (40.8)	4777 (38.5)	1406 (41.4)	1789 (39.2)	1678 (39.0)	2601 (39.1)
3-5	21249 (23.4)	9794 (22.2)	2010 (24.3)	1686 (23.3)	3138 (25.3)	817 (24.1)	1161 (25.5)	1028 (23.9)	1615 (24.3)
6-8	4545 (5.0)	2006 (4.6)	386 (4.7)	327 (4.5)	777 (6.3)	149 (4.4)	307 (6.7)	232 (5.4)	361 (5.4)
9+	963 (1.1)	415 (0.9)	81 (1.0)	73 (1.0)	143 (1.2)	40 (1.2)	73 (1.6)	59 (1.4)	79 (1.2)
<i>Pre-admission medication use (within 180 days prior to index admission)</i>									
ACEI/ARB	63 170 (69.5)	31 167 (70.8)	6078 (73.5)	5283 (73.0)	8572 (69.1)	2509 (73.9)	3040 (66.7)	2605 (60.5)	3916 (58.9)
Beta-blocker	51 453 (56.6)	25899 (58.8)	5091 (61.6)	3699 (51.1)	7222 (58.2)	1641 (48.3)	2867 (62.9)	2090 (48.6)	2944 (44.3)
Statin	55 636 (61.2)	23038 (63.7)	4586 (55.5)	4850 (67.0)	8004 (64.5)	1767 (52.0)	2476 (54.3)	2748 (63.9)	3167 (47.7)
<i>Pre-admission variables for frailty proxy (within 180 days prior to index admission)</i>									
Ambulance Transport	23875 (26.3)	11092 (25.2)	2190 (26.5)	1847 (25.5)	3220 (26.0)	938 (27.6)	1319 (28.9)	1186 (27.6)	2083 (31.3)
Coagulation Deficiency	4052 (4.5)	1849 (4.2)	398 (4.8)	286 (4.0)	610 (4.9)	152 (4.5)	222 (4.9)	213 (5.0)	322 (4.8)
Decubitus Ulcer	4532 (5.0)	2069 (4.7)	440 (5.3)	339 (4.7)	679 (5.5)	168 (5.0)	256 (5.6)	203 (4.7)	378 (5.7)
Falls/Difficulty Walking	13015 (14.3)	5960 (13.5)	1169 (14.1)	1025 (14.2)	1830 (14.8)	550 (16.2)	748 (16.4)	630 (14.6)	1103 (16.6)
Obesity	5953 (6.6)	2874 (6.5)	541 (6.5)	490 (6.8)	808 (6.5)	230 (6.8)	313 (6.9)	264 (6.1)	433 (6.5)
Bladder Dysfunction	8234 (9.1)	3774 (8.6)	739 (8.9)	673 (9.3)	1219 (9.8)	301 (8.9)	468 (10.3)	422 (9.8)	638 (9.6)
Infection/sepsis	12876 (14.2)	5919 (13.4)	1162 (14.1)	1001 (13.8)	1868 (15.1)	500 (14.7)	740 (16.2)	642 (14.9)	1044 (15.7)
Lipid Abnormality	67108 (73.9)	32587 (74.0)	6172 (74.6)	5489 (75.8)	9377 (75.6)	2408 (70.9)	3424 (75.1)	3255 (75.6)	4396 (66.1)
Podiatric Care	17385 (19.1)	8552 (19.4)	1593 (19.3)	1308 (18.1)	2478 (20.0)	613 (18.1)	921 (20.2)	740 (17.2)	1180 (17.8)
Neurological Disorder	10715 (11.8)	4782 (10.9)	952 (11.5)	903 (12.5)	1460 (11.8)	446 (13.1)	620 (13.6)	553 (12.9)	999 (15.0)
Osteoarthritis	27834 (30.6)	13335 (30.3)	2579 (31.2)	2212 (30.5)	3842 (31.0)	1125 (33.1)	1441 (31.6)	1311 (30.5)	1989 (29.9)
Paralysis	2199 (2.4)	991 (2.3)	209 (2.5)	182 (2.5)	266 (2.1)	105 (3.1)	127 (2.8)	104 (2.4)	215 (3.2)
Parkinson's Disease	1142 (1.3)	527 (1.2)	111 (1.3)	93 (1.3)	164 (1.3)	42 (1.2)	61 (1.3)	54 (1.3)	90 (1.4)
Pulmonary Circulation Disorder	4477 (4.9)	2039 (4.6)	461 (5.6)	353 (4.9)	680 (5.5)	172 (5.1)	237 (5.2)	226 (5.3)	309 (4.7)
Rehabilitation Services	14444 (15.9)	6820 (15.5)	1359 (16.4)	1146 (15.8)	2047 (16.5)	561 (16.5)	763 (16.7)	704 (16.4)	1044 (15.7)
Screening tests	71107 (78.3)	34708 (78.8)	6442 (77.9)	5763 (79.6)	9956 (80.3)	2603 (76.7)	3594 (78.8)	3412 (79.3)	4629 (69.6)
Vertigo	13242(14.6)	5990 (13.6)	1245 (15.1)	1089 (15.0)	1917 (15.5)	546 (16.1)	742 (16.3)	651 (15.1)	1062 (16.0)
Weakness	2771 (3.0)	1216 (2.8)	247 (3.0)	202 (2.8)	396 (3.2)	121 (3.6)	164 (3.6)	156 (3.6)	269 (4.1)
Wheelchair	136 (0.1)	64 (0.2)	13 (0.2)	11 (0.2)	17 (0.1)	4 (0.1)	8 (0.2)	4 (0.1)	15 (0.2)
Weight Loss	4458 (4.9)	1975 (4.5)	443 (5.4)	345 (4.8)	607 (4.9)	172 (5.1)	266 (5.8)	236 (5.5)	414 (6.2)
<i>Characteristics of index admission</i>									
NSTEMI	65351 (71.9)	31159 (70.7)	6009 (72.7)	5344 (73.8)	8983 (72.4)	2522 (74.3)	3364 (73.8)	3071 (71.4)	4899 (73.7)
CHF	32090 (35.3)	15275 (34.7)	2904 (35.1)	2305 (31.8)	4759 (38.4)	1172 (34.5)	1713 (37.6)	1505 (35.0)	2457 (37.0)
Cardiogenic Shock	2488 (2.7)	1192 (2.7)	197 (2.4)	145 (2.0)	452 (3.6)	77 (2.3)	126 (2.8)	145 (3.4)	154 (2.3)
Cardiac Arrest	1062 (1.2)	544 (1.2)	89 (1.1)	64 (0.9)	147 (1.2)	26 (0.8)	66 (1.5)	67 (1.6)	59 (0.9)
Acute Renal Failure	11037 (12.2)	4549 (10.3)	909 (11.0)	776 (10.7)	2234 (18.0)	352 (10.4)	705 (15.5)	629 (14.6)	883 (13.3)
Cardiac Dysrhythmias	27444 (30.2)	13177 (29.9)	2615 (31.6)	2244 (31.0)	3867 (31.2)	996 (29.3)	1412 (31.0)	1321 (30.7)	1812 (27.3)
Hypotension	4510 (5.0)	2120 (4.8)	374 (4.5)	367 (5.1)	694 (5.6)	160 (4.7)	226 (5.0)	261 (6.1)	308 (4.6)
Angiocardiology	61208 (67.4)	30340 (69.1)	5478 (66.3)	4885 (67.5)	8221 (66.3)	2227 (65.6)	2927 (64.2)	2922 (67.9)	4118 (62.0)
CABG	7011 (7.7)	3099 (7.0)	555 (6.7)	524 (7.2)	1363 (11.0)	220 (6.5)	393 (8.6)	432 (10.0)	425 (6.4)

Continued

Online Table 1. Continued

	Adherent to								
	Cohort	All three therapies	ACEI/ARB + beta-blocker only	ACEI/ARB + statin only	Beta-blocker + statin only	ACEI/ARB only	Beta-blocker only	Statin only	None
PCI	44137 (48.6)	22741 (51.6)	3887 (47.0)	3502 (48.4)	5698 (46.0)	1576 (46.4)	1956 (42.9)	2014 (46.8)	2763 (41.6)
Cardiac Catheterization	61525 (67.7)	30529 (69.3)	5518 (66.7)	4915 (67.9)	8274 (66.7)	2250 (66.3)	2971 (65.2)	2915 (67.7)	4153 (62.5)
Thrombolytic Use for AMI	615 (0.7)	306 (0.7)	66 (0.8)	45 (0.6)	67 (0.5)	26 (0.8)	29 (0.6)	29 (0.7)	47 (0.7)
Antiplatelet Use for AMI	4901 (5.4)	2445 (5.6)	440 (5.3)	406 (5.6)	673 (5.4)	164 (4.8)	221 (4.9)	227 (5.3)	325 (4.9)
<i>Adherence (PDC) mean (IQR) (during 180 days after the index discharge)</i>									
ACEI/ARB	0.81 (0.68-1.00)	0.97 (0.97-1.00)	0.96 (0.93-1.00)	0.96 (0.93-1.00)	0.45 (0.24-0.66)	0.94 (0.88-1.00)	0.46 (0.26-0.66)	0.46 (0.26-0.66)	0.45 (0.26-0.66)
Beta-blocker	0.86 (0.82-1.00)	0.97 (0.97-1.00)	0.96 (0.93-1.00)	0.53 (0.37-0.69)	0.97 (0.95-1.00)	0.53 (0.38-0.68)	0.95 (0.90-1.00)	0.52 (0.36-0.68)	0.48 (0.33-0.66)
Statin	0.85 (0.79-1.00)	0.97 (0.96-1.00)	0.52 (0.34-0.78)	0.95 (0.92-1.00)	0.96 (0.93-1.00)	0.51 (0.33-0.68)	0.51 (0.33-0.68)	0.94 (0.89-1.00)	0.46 (0.32-0.66)
<i>Number of outcome events</i>	9617 (10.6)	3995 (9.1)	884 (10.7)	670 (9.3)	1448 (11.7)	381 (11.2)	618 (13.6)	530 (12.3)	1091 (16.4)
<i>Follow-up mean days</i>	347	351	347	352	344	345	344	347	335

Note: Values are n (%) if not otherwise stated. *Dementia/Alzheimer's Disease

ACEI/ARB = angiotensin converting enzyme inhibitors/angiotensin II receptor blocker; AMI = acute myocardial infarction; BB = beta-blocker; CABG = coronary artery bypass surgery; CHF = congestive heart failure; CKD = chronic kidney disease; COPD = chronic obstructive pulmonary disease; IHD = ischemic heart disease; IQR = interquartile range; NSTEMI = non-ST-elevation myocardial infarction; PDC = proportion of days covered; PCI = percutaneous coronary interventions; PVD = peripheral vascular disease; SD = standard deviation; TIA = transient ischemic attack.

Online Table 2. Hazard ratios (95% confidence intervals) of mortality by adherence to various combinations of preventive therapies in the whole study cohort and subgroups stratified by presence heart failure, dementia and diabetes, and age and sex.

	Adherence to							
	All three classes	ACEI/ARB + beta-blocker only	ACEI/ARB + statin only	Beta-blocker + statin only	ACEI/ARB only	Beta-blocker only	Statin only	None
Whole study cohort (n=90,869)	(n=44,051)	(n=8269)	(n=7242)	(n=12 401)	(n=3396)	(n=4559)	(n=4304)	(n=6647)
Unadjusted	1.00	1.19 (1.11-1.28)	1.02 (0.94-1.10)	1.31 (1.23-1.39)	1.26 (1.13-1.40)	1.52 (1.40-1.68)	1.37 (1.25-1.50)	1.89 (1.77-2.02)
Adjusted for age and gender	1.00	1.18 (1.10-1.27)	1.00 (0.92-1.08)	1.28 (1.20-1.35)	1.24 (1.12-1.38)	1.48 (1.36-1.61)	1.35 (1.24-1.48)	1.85 (1.73-1.98)
+ race, income, state of residence, insurance status and comorbidities*	1.00	1.12 (1.04-1.21)	0.98 (0.90-1.07)	1.17 (1.10-1.24)	1.20 (1.08-1.33)	1.32 (1.21-1.44)	1.25 (1.14-1.37)	1.66 (1.55-1.78)
+ frailty†	1.00	1.12 (1.04-1.21)	0.98 (0.91-1.07)	1.17 (1.10-1.25)	1.19 (1.07-1.32)	1.32 (1.21-1.44)	1.26 (1.15-1.38)	1.65 (1.54-1.76)
Patients with heart failure (n=38,357)	(n=18,151)	(n=3523)	(n=2809)	(n=5662)	(n=1441)	(n=2037)	(n=1792)	(n=2942)
Unadjusted	1.00	1.12 (1.03-1.23)	1.04 (0.94-1.15)	1.23 (1.15-1.33)	1.13 (0.99-1.30)	1.41 (1.27-1.56)	1.36 (1.21-1.52)	1.73 (1.59-1.88)
Adjusted for age and gender	1.00	1.13 (1.03-1.23)	1.03 (0.93-1.14)	1.21 (1.12-1.30)	1.14 (1.00-1.30)	1.39 (1.25-1.54)	1.32 (1.18-1.48)	1.71 (1.57-1.85)
+ race, income, state of residence, insurance status and comorbidities*	1.00	1.09 (1.00-1.19)	0.99 (0.89-1.09)	1.15 (1.07-1.24)	1.11 (0.97-1.27)	1.29 (1.16-1.43)	1.23 (1.10-1.38)	1.62 (1.48-1.76)
+ frailty†	1.00	1.09 (0.99-1.19)	0.99 (0.89-1.09)	1.15 (1.07-1.24)	1.10 (0.96-1.26)	1.29 (1.16-1.43)	1.23 (1.10-1.38)	1.61 (1.47-1.75)
Patients w/o heart failure (n=52,512)	(n=25,900)	(n=4746)	(n=4433)	(n=6739)	(n=1955)	(n=2522)	(n=2512)	(n=3705)
Unadjusted	1.00	1.27 (1.13-1.44)	1.05 (0.91-1.20)	1.30 (1.16-1.44)	1.46 (1.23-1.74)	1.61 (1.39-1.87)	1.41 (1.21-1.64)	2.10 (1.88-2.36)
Adjusted for age and gender	1.00	1.26 (1.11-1.42)	1.02 (0.89-1.17)	1.27 (1.14-1.42)	1.42 (1.20-1.69)	1.56 (1.35-1.81)	1.40 (1.20-1.64)	2.05 (1.83-2.19)
+ race, income, state of residence, insurance status and comorbidities*	1.00	1.19 (1.05-1.35)	1.00 (0.87-1.15)	1.20 (1.07-1.33)	1.39 (1.17-1.65)	1.39 (1.20-1.61)	1.29 (1.11-1.52)	1.74 (1.55-1.96)
+ frailty†	1.00	1.18 (1.04-1.34)	1.01 (0.88-1.16)	1.21 (1.08-1.35)	1.38 (1.16-1.65)	1.37 (1.19-1.59)	1.30 (1.11-1.52)	1.73 (1.54-1.95)
Patients with dementia (n=8666)	(n=3155)	(n=575)	(n=606)	(n=910)	(n=329)	(n=395)	(n=370)	(n=773)
Unadjusted	1.00	1.37 (1.14-1.65)	0.85 (0.69-1.06)	1.28 (1.10-1.50)	1.16 (0.90-1.49)	1.63 (1.33-2.00)	1.28 (1.02-1.61)	1.49 (1.27-1.75)
Adjusted for age and gender	1.00	1.33 (1.11-1.60)	0.88 (0.71-1.09)	1.25 (1.07-1.46)	1.19 (0.93-1.54)	1.61 (1.32-1.97)	1.28 (1.02-1.61)	1.49 (1.27-1.75)
+ race, income, state or residence, insurance status, and comorbidities*	1.00	1.30 (1.08-1.57)	0.90 (0.72-1.12)	1.25 (1.06-1.47)	1.23 (0.95-1.59)	1.59 (1.29-1.96)	1.25 (0.99-1.58)	1.53 (1.29-1.81)
+ frailty†	1.00	1.29 (1.07-1.56)	0.90 (0.72-1.12)	1.25 (1.06-1.47)	1.21 (0.93-1.57)	1.58 (1.28-1.95)	1.23 (0.97-1.55)	1.50 (1.26-1.78)
Patients w/o dementia (n=82,980)	(n=40,458)	(n=7639)	(n=6575)	(n=11 420)	(n=3040)	(n=4150)	(n=3902)	(n=5796)
Unadjusted	1.00	1.16 (1.08-1.26)	1.03 (0.94-1.12)	1.31 (1.23-1.40)	1.23 (1.09-1.39)	1.47 (1.34-1.62)	1.36 (1.23-1.50)	1.88 (1.76-2.03)
Adjusted for age and gender	1.00	1.16 (1.07-1.25)	1.01 (0.92-1.10)	1.28 (1.20-1.37)	1.22 (1.09-1.37)	1.44 (1.31-1.58)	1.35 (1.22-1.49)	1.86 (1.76-2.00)
+ race, income, state of residence, insurance status, and comorbidities*	1.00	1.09 (1.01-1.18)	0.99 (0.90-1.08)	1.17 (1.09-1.25)	1.19 (1.06-1.34)	1.29 (1.17-1.42)	1.27 (1.15-1.40)	1.68 (1.56-1.81)
+ frailty†	1.00	1.09 (1.01-1.18)	0.99 (0.91-1.08)	1.17 (1.10-1.25)	1.19 (1.06-1.34)	1.29 (1.18-1.42)	1.29 (1.16-1.42)	1.67 (1.55-1.80)
Patients with diabetes (n=36,337)	(n=17,600)	(n=3369)	(n=2881)	(n=5000)	(n=1393)	(n=1913)	(n=1633)	(n=2548)
Unadjusted	1.00	1.14 (1.23-1.27)	0.96 (0.85-1.08)	1.34 (1.23-1.45)	1.14 (0.98-1.33)	1.59 (1.41-1.78)	1.23 (1.07-1.41)	1.69 (1.53-1.87)
Adjusted for age and gender	1.00	1.15 (1.03-1.27)	0.95 (0.83-1.05)	1.31 (1.20-1.42)	1.14 (0.98-1.33)	1.61 (1.44-1.81)	1.21 (1.05-1.39)	1.70 (1.54-1.88)
+ race, income, state of residence insurance status, and comorbidities*	1.00	1.11 (1.00-1.24)	0.92 (0.82-1.04)	1.20 (1.10-1.31)	1.15 (0.98-1.34)	1.44 (1.28-1.62)	1.12 (0.97-1.29)	1.56 (1.41-1.73)
+ frailty†	1.00	1.13 (1.00-1.24)	0.92 (0.82-1.04)	1.20 (1.10-1.31)	1.14 (0.97-1.33)	1.44 (1.28-1.62)	1.12 (0.98-1.29)	1.55 (1.40-1.72)
Patients without diabetes (n=54,532)	(n=26,451)	(n=4900)	(n=4361)	(n=7401)	(n=2003)	(n=2646)	(n=2671)	(n=4099)
Unadjusted	1.00	1.24 (1.12-1.37)	1.07 (0.96-1.21)	1.28 (1.18-1.40)	1.36 (1.18-1.57)	1.43 (1.26-1.62)	1.52 (1.35-1.75)	2.10 (1.92-2.30)
Adjusted for age and gender	1.00	1.21 (1.09-1.34)	1.06 (0.95-1.18)	1.24 (1.14-1.35)	1.32 (1.14-1.53)	1.33 (1.17-1.51)	1.51 (1.34-1.70)	2.00 (1.83-2.18)
+ race, income, state of residence, insurance status, and comorbidities*	1.00	1.14 (1.03-1.27)	1.05 (0.93-1.17)	1.14 (1.05-1.25)	1.24 (1.07-1.33)	1.19 (1.05-1.35)	1.38 (1.22-1.56)	1.73 (1.58-1.90)
+ frailty†	1.00	1.14 (1.03-1.26)	1.05 (0.94-1.18)	1.14 (1.05-1.25)	1.24 (1.07-1.43)	1.18 (1.04-1.34)	1.38 (1.22-1.56)	1.71 (1.56-1.88)

Continued

Online Table 2. Continued

	All three classes	ACEI/ARB + beta-blocker only	ACEI/ARB + statin only	Beta-blocker + statin only	ACEI/ARB only	Beta-blocker only	Statin only	None
Patients aged 65-74 (n=39,572)	(n=19,661)	(n=3582)	(n=3078)	(n=5105)	(n=1464)	(n=1907)	(n=1870)	(n=2905)
Unadjusted	1.00	1.19 (1.04-1.37)	0.98 (0.83-1.14)	1.37 (1.22-1.53)	1.2 (0.98-1.46)	1.57 (1.34-1.84)	1.26 (1.06-1.51)	2.07 (1.83-2.33)
Adjusted for sex	1.00	1.19 (1.04-1.37)	0.98 (0.83-1.14)	1.37 (1.22-1.53)	1.19 (0.98-1.46)	1.57 (1.34-1.84)	1.26 (1.06-1.51)	2.07 (1.83-2.33)
+ race, income, state of residence, insurance status, and comorbidities*	1.00							
+ frailty†	1.00	1.13 (0.99-1.30)	0.94 (0.80-1.10)	1.25 (1.11-1.4)	1.10 (0.90-1.35)	1.35 (1.15-1.58)	1.22 (1.02-1.46)	1.71 (1.51-1.93)
Patients aged 75-84 (n=36,093)	(n=17,279)	(n=3313)	(n=2907)	(n=5120)	(n=1348)	(n=1838)	(n=1738)	(n=2550)
Unadjusted	1.00	1.19 (1.06-1.33)	1.04 (0.92-1.18)	1.29 (1.17-1.41)	1.5 (1.28-1.75)	1.55 (1.36-1.77)	1.43 (1.24-1.64)	1.8 (1.62-2.01)
Adjusted for sex	1.00	1.20 (1.07-1.34)	1.04 (0.91-1.18)	1.28 (1.17-1.41)	1.5 (1.29-1.75)	1.55 (1.36-1.77)	1.42 (1.23-1.63)	1.8 (1.61-2.00)
+ race, income, state of residence, insurance status, and comorbidities*	1.00							
+ frailty†	1.00	1.13 (1.01-1.27)	1.00 (0.88-1.13)	1.19 (1.08-1.31)	1.48 (1.27-1.72)	1.37 (1.2-1.56)	1.29 (1.12-1.48)	1.61 (1.44-1.81)
Patients aged 85+ (n=15,204)	(n=7111)	(n=1374)	(n=1257)	(n=2176)	(n=584)	(n=814)	(n=696)	(n=1192)
Unadjusted	1.00	1.16 (1.02-1.32)	0.97 (0.83-1.12)	1.20 (1.07-1.33)	0.96 (0.78-1.19)	1.33 (1.14-1.56)	1.38 (1.17-1.62)	1.77 (1.57-2.00)
Adjusted for sex	1.00	1.17 (1.02-1.33)	0.96 (0.83-1.12)	1.19 (1.07-1.33)	0.97 (0.79-1.19)	1.33 (1.14-1.55)	1.35 (1.15-1.59)	1.76 (1.56-1.99)
+ race, income, state of residence, insurance status, and comorbidities*	1.00							
+ frailty†	1.00	1.12 (0.98-1.28)	0.98 (0.85-1.14)	1.11 (0.99-1.24)	0.94 (0.76-1.16)	1.23 (1.05-1.44)	1.27 (1.07-1.49)	1.64 (1.45-1.86)
Female patients (n=49,777)	(n=24,046)	(n=4889)	(n=3950)	(n=6710)	(n=1989)	(n=2598)	(n=2089)	(n=3506)
Unadjusted	1.00	1.13 (1.03-1.24)	1.01 (0.91-1.13)	1.25 (1.15-1.35)	1.22 (1.07-1.40)	1.33 (1.18-1.49)	1.31 (1.15-1.49)	1.85 (1.69-2.03)
Adjusted for age	1.00	1.13 (1.03-1.24)	0.99 (0.89-1.11)	1.23 (1.14-1.34)	1.21 (1.06-1.39)	1.31 (1.17-1.47)	1.31 (1.15-1.49)	1.81 (1.65-1.98)
+ race, income, state of residence, insurance status, and comorbidities*	1.00							
+ frailty†	1.00	1.09 (0.99-1.20)	0.97 (0.87-1.08)	1.13 (1.05-1.23)	1.15 (1.00-1.32)	1.18 (1.05-1.33)	1.24 (1.09-1.42)	1.61 (1.46-1.76)
Male patients (n=41,092)	(n=20,005)	(n=3380)	(n=3292)	(n=5691)	(n=1407)	(n=1961)	(n=2215)	(n=3141)
Unadjusted	1.00	1.27 (1.14-1.43)	1.03 (0.91-1.16)	1.40 (1.28-1.53)	1.29 (1.09-1.53)	1.81 (1.60-2.05)	1.46 (1.29-1.66)	1.95 (1.77-2.16)
Adjusted for age	1.00	1.25 (1.11-1.4)	1.01 (0.89-1.14)	1.33 (1.22-1.45)	1.27 (1.08-1.50)	1.71 (1.51-1.93)	1.4 (1.23-1.59)	1.89 (1.71-2.09)
+ race, income, state of residence, insurance status, and comorbidities*	1.00							
+ frailty†	1.00	1.18 (1.05-1.32)	1.00 (0.88-1.13)	1.22 (1.11-1.34)	1.29 (1.09-1.53)	1.51 (1.33-1.72)	1.27 (1.11-1.44)	1.73 (1.56-1.92)

*Acute myocardial infarction (AMI), coronary artery bypass graft surgery (CABG), percutaneous coronary intervention (PCI), stroke/transient ischemic attack, unstable angina, angina pectoris, ischemic heart disease, heart failure, atrial fibrillation, peripheral vascular disease, hypertension, hyperlipidemia; chronic kidney disease, liver disease, chronic obstructive pulmonary disease, asthma, depression, dementia/Alzheimer's Disease, dispensations for ACEIs/ARBs, beta-blockers, and statins within 180 days within prior to the index AMI hospitalization and, during the hospitalization, AMI type (non-ST elevation vs. ST elevation myocardial infarction), revascularization procedures (CABG, PCI, cardiac catheterization, infusion of thrombolytic and/or platelet inhibitors) and complications (heart failure, cardiogenic shock, acute renal failure, hypotension, cardiac dysrhythmias) and total intensive care unit and inpatient days.

† Additional variables suggestive of frailty proxy including ambulance transport, coagulation deficiency, decubitus ulcer, falls/difficulty walking, obesity, bladder dysfunction, infection/sepsis, lipid abnormality, podiatric care, neurological disorder, osteoarthritis, paralysis, Parkinson's Disease, pulmonary circulation disorder, rehabilitation services, screening tests, vertigo, weakness, wheelchair, weight loss

Online Table 3. Sensitivity analysis by additionally controlling for polypharmacy and dose of medications

Adherence Groups	Main Finding	Sensitivity Analysis
	HR (95% CI)	
ACEI/ARB+beta-blocker+statin	Ref	Ref
ACEI/ARB+beta-blocker only	1.12 (1.04-1.21)	1.13 (1.05-1.21)
ACEI/ARB+statin only	0.98 (0.91-1.07)	0.99 (0.91-1.07)
Beta-blocker+statin only	1.17 (1.1-1.25)	1.19 (1.12-1.256)
ACEI/ARB only	1.19 (1.07-1.32)	1.22 (1.09-1.35)
Beta-blocker only	1.32 (1.21-1.44)	1.34 (1.23-1.46)
Statin only	1.26 (1.15-1.38)	1.31 (1.19-1.43)
None	1.65 (1.54-1.76)	1.73 (1.61-1.85)

Online Table 4. Proportional hazard assumption test (Pearson correlation test of Schoenfeld residuals with time)

Adherence group	Pearson Correlation r	P-Value
ACEI/ARB+beta-blocker only	-0.007	0.501
ACEI/ARB+statin only	0.001	0.948
Beta-blocker+statin only	-0.007	0.484
ACEI/ARB only	-0.025	0.014
Beta-blocker only	-0.014	0.152
Statin only	-0.001	0.954
None	d-0.033	<.0001