

# **SUPPLEMENTAL MATERIAL**

**Table S1.** Number and proportion of patients with ABC compliant – to be removed

ABC - groups	N (%)
- A compliant	2561 (77.9%)
- A not compliant	754 (22.1%)
- B compliant	2608 (76.6%)
- B not compliant	797 (23.4%)
- C compliant	2345 (68.9%)
- C not compliant	1060 (31.1%)
- ABC compliant	1453 (42.7%)
- ABC not compliant	1952 (57.3%)

**Table S2.** Incidence rate of clinical outcome according to ABC compliance status

<b>ABC groups</b>	<b>Number of patients</b>	<b>Number of events</b>	<b>100 person-years</b>	<b>Rate per 100 person-years</b>
<b>All-cause death/SSE</b>	<b>3405</b>	<b>467</b>	<b>88.24</b>	<b>5.29</b>
- A compliant	2651	356	68.90	5.17
- A not compliant	754	111	19.34	5.74
- B compliant	2608	293	68.25	4.29
- B not compliant	797	174	19.99	8.70
- C compliant	2345	282	61.36	4.60
- C not compliant	1060	185	26.88	6.88
- ABC compliant	1453	144	38.19	3.77
- ABC not compliant	1952	323	50.06	6.45
<b>All-cause death</b>	<b>3405</b>	<b>380</b>	<b>90.27</b>	<b>4.21</b>
- A compliant	2651	300	70.30	4.27
- A not compliant	754	80	19.97	4.01
- B compliant	2608	232	69.72	3.33
- B not compliant	797	148	20.55	7.20
- C compliant	2345	229	62.74	3.65
- C not compliant	1060	151	27.53	5.49
- ABC compliant	1453	118	38.97	3.03
- ABC not compliant	1952	262	51.30	5.11
<b>SSE</b>	<b>3405</b>	<b>134</b>	<b>88.99</b>	<b>1.51</b>
- A compliant	2651	95	69.48	1.37
- A not compliant	754	39	19.51	2.00
- B compliant	2608	91	68.83	1.32
- B not compliant	797	43	20.16	2.13
- C compliant	2345	82	61.89	1.33
- C not compliant	1060	52	27.11	1.92
- ABC compliant	1453	45	38.51	1.17
- ABC not compliant	1952	89	50.48	1.76
<b>Major bleeding</b>	<b>3405</b>	<b>199</b>	<b>88.36</b>	<b>2.25</b>

- A compliant	2651	170	68.58	2.48
- A not compliant	754	29	19.77	1.47
- B compliant	2608	150	68.11	2.20
- B not compliant	797	49	20.25	2.42
- C compliant	2345	133	61.40	2.17
- C not compliant	1060	66	26.96	2.45
- ABC compliant	1453	80	38.03	2.10
- ABC not compliant	1952	119	50.33	2.36
<b>ICH</b>	<b>3405</b>	<b>70</b>	<b>89.85</b>	<b>0.78</b>
- A compliant	2651	62	69.91	0.89
- A not compliant	754	8	19.94	0.40
- B compliant	2608	48	69.40	0.69
- B not compliant	797	22	20.45	1.08
- C compliant	2345	48	62.43	0.77
- C not compliant	1060	22	27.42	0.80
- ABC compliant	1453	25	38.77	0.64
- ABC not compliant	1952	45	51.08	0.88
<b>Heart failure</b>	<b>3405</b>	<b>247</b>	<b>87.08</b>	<b>2.84</b>
- A compliant	2651	196	67.72	2.89
- A not compliant	754	51	19.36	2.63
- B compliant	2608	152	67.89	2.24
- B not compliant	797	95	19.19	4.95
- C compliant	2345	139	60.99	2.28
- C not compliant	1060	108	26.09	4.14
- ABC compliant	1453	64	38.26	1.67
- ABC not compliant	1952	183	48.82	3.75

SSE = ischemic stroke/systemic embolism, ICH = intracranial hemorrhage

**Table S3.** Baseline characteristics of study population with systole blood pressure (SBP) target and not target.

Characteristics	All (N=3,405)	SBP target (n=1,427)	SBP not target (n=1,978)	p-value
Age (years)	67.8±11.3	67.6±10.9	68±11.5	0.316
Female gender	1,424 (41.8%)	589 (41.3%)	835 (42.2%)	0.584
BMI (kg/m <sup>2</sup> )	25.2±4.7	25.5±4.8	24.9±4.6	<b>&lt;0.001</b>
SBP (mmHg)	128.5±18.4	129.5±5.7	127.7±23.7	<b>0.001</b>
DBP (mmHg)	75.2±12.7	76.6±10.7	74.2±13.8	<b>&lt;0.001</b>
Pulse (bpm)	77.4±16.2	77.5±15.5	77.3±16.7	0.723
Time after diagnosis of AF (years)	3.4±4.3	3.5±4.1	3.3±4.5	0.324
Atrial fibrillation				0.045
- Paroxysmal	1,148 (33.7%)	481 (33.7%)	667 (33.7%)	
- Persistent	645 (18.9%)	244 (17.1%)	401 (20.3%)	
- Permanent	1,612 (47.3%)	702 (49.2%)	910 (46.0%)	
Symptomatic AF	2,620 (76.9%)	1,100 (77.1%)	1,520 (76.8%)	0.870
History of heart failure	913 (26.8%)	344 (24.1%)	569 (28.8%)	<b>0.002</b>
History of CAD	547 (16.1%)	214 (15.0%)	333 (16.8%)	0.149
CIED	341 (10.0%)	117 (8.2%)	224 (11.3%)	<b>0.003</b>
History of ischemic stroke/TIA	592 (17.4%)	239 (16.7%)	353 (17.8%)	0.404
Diabetes mellitus	839 (24.6%)	370 (25.9%)	469 (23.7%)	0.138
Hypertension	2,330 (68.4%)	1,002 (70.2%)	1,328 (67.1%)	0.057
Smoking	678 (19.9%)	290 (20.3%)	388 (19.6%)	0.610
Dyslipidemia	1,917 (56.3%)	839 (58.8%)	1,078 (54.5%)	<b>0.013</b>
Renal replacement therapy	40 (1.2%)	16 (1.1%)	24 (1.2%)	0.806
Dementia	29 (0.9%)	16 (1.1%)	13 (0.7%)	0.146
Systemic embolism	25 (0.7%)	7 (0.5%)	18 (0.9%)	0.157
History of peripheral vascular disease	44 (1.3%)	17 (1.2%)	27 (1.4%)	0.658
History of carotid occlusive disease	8 (0.2%)	3 (0.2%)	5 (0.3%)	0.800
History of stent use	253 (7.4%)	96 (6.7%)	157 (7.9%)	0.184
History of CABG	65 (1.9%)	26 (1.8%)	39 (2.0%)	0.753
History of alcohol abuse,	140 (4.1%)	55 (3.9%)	85 (4.3%)	0.521
History of bleeding	324 (9.5%)	138 (9.7%)	186 (9.4%)	0.793
CKD	1,756 (51.6%)	710 (49.8%)	1,046 (52.9%)	0.072
Anemia	1,293 (38.0%)	530 (37.1%)	763 (38.6%)	0.395
LVEF	60.2±13.7	61±13.2	59.6±14.1	<b>0.002</b>
CHA <sub>2</sub> DS <sub>2</sub> -VASc score				0.765
- Low risk	287 (8.4%)	126 (8.8%)	161 (8.1%)	
- Intermediate risk	548 (16.1%)	227 (15.9%)	321 (16.2%)	
- High risk	2,570 (75.5%)	1,074 (75.3%)	1,496 (75.6%)	
HAS-BLED score				0.312

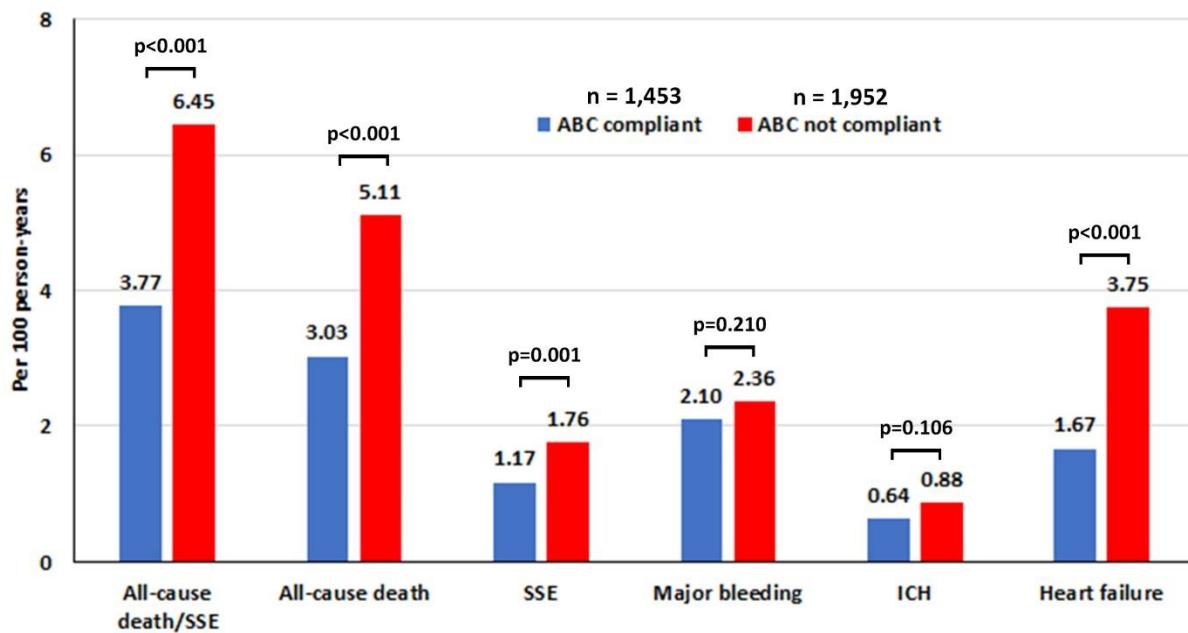
- 0	490 (14.4%)	220 (15.4%)	270 (13.7%)	
- 1-2	1,255 (36.9%)	526 (36.9%)	729 (36.9%)	
- ≥3	1,660 (48.8%)	681 (47.7%)	979 (49.5%)	
Antiplatelet	892 (26.2%)	359 (25.2%)	533 (26.9%)	0.241
Anticoagulant	2,568 (75.4%)	1,092 (76.5%)	1,476 (74.6%)	0.203
- Warfarin	2,340 (68.7%)	994 (69.7%)	1,346 (68.0%)	0.318
- NOACs	228 (6.7%)	98 (6.9%)	130 (6.6%)	0.734
Beta blocker	2,477 (72.7%)	1,032 (72.3%)	1,445 (73.1%)	0.635
CCB	935 (27.5%)	429 (30.1%)	506 (25.6%)	<b>0.004</b>
Digitalis	539 (15.8%)	230 (16.1%)	309 (15.6%)	0.696
MRA	280 (8.2%)	83 (5.8%)	197 (10.0%)	<b>&lt;0.001</b>
Statin	2,014 (59.1%)	855 (59.9%)	1,159 (58.6%)	0.439
ACEI/ARB	1,557 (45.7%)	624 (43.7%)	933 (47.2%)	<b>0.047</b>
NSAID/Cox-2 inhibitor	83 (2.4%)	32 (2.2%)	51 (2.6%)	0.531

**Table S4.** Baseline characteristics of study population with time in therapeutic range (TTR) < and  $\geq$ 65%.

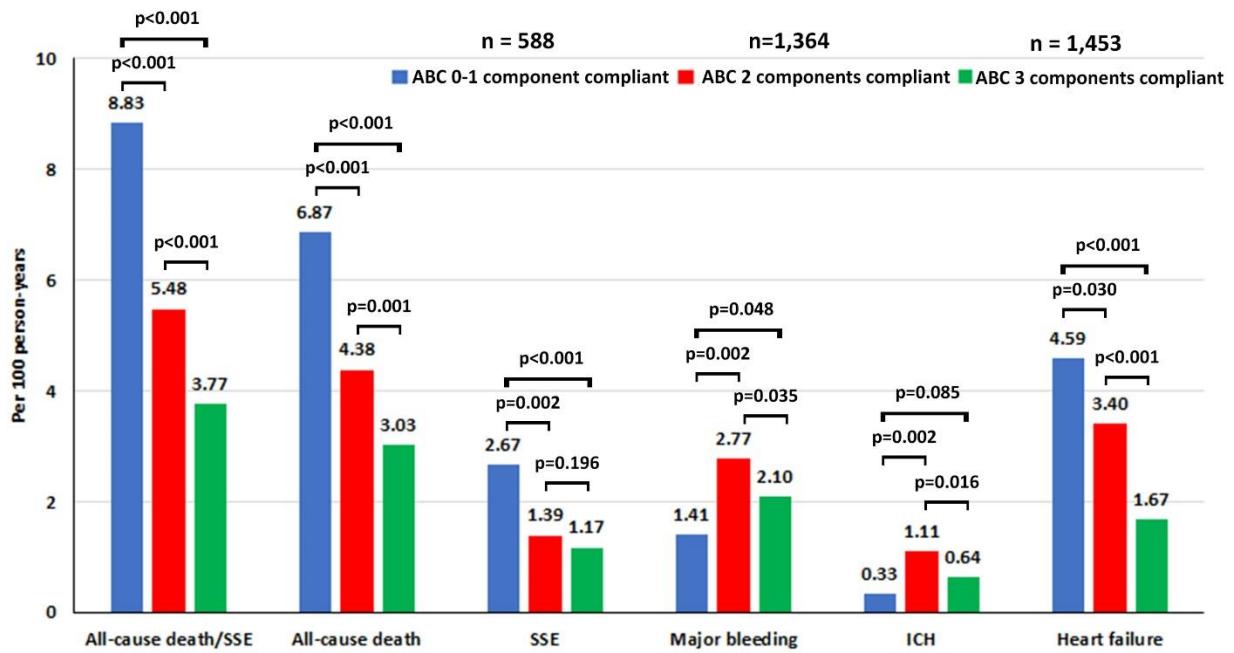
Characteristics	All (N=2,233)	TTR <65% (n=1,432)	TTR $\geq$ 65% (n=801)	p-value
Age (years)	68.9 $\pm$ 10.6	69 $\pm$ 10.5	68.6 $\pm$ 10.6	0.437
Female gender	980 (43.9%)	629 (43.9%)	351 (43.8%)	0.962
BMI (kg/m <sup>2</sup> )	25.3 $\pm$ 4.8	25.1 $\pm$ 4.9	25.5 $\pm$ 4.6	0.080
SBP (mmHg)	128.1 $\pm$ 18	128.3 $\pm$ 18	127.7 $\pm$ 18	0.483
DBP (mmHg)	75 $\pm$ 12.5	74.9 $\pm$ 12.3	75.1 $\pm$ 12.9	0.784
Pulse (bpm)	77.4 $\pm$ 16.2	77.8 $\pm$ 16.3	76.6 $\pm$ 16	0.103
Time after diagnosis of AF (years)	3.6 $\pm$ 4.4	3.4 $\pm$ 4.2	3.8 $\pm$ 4.7	<b>0.039</b>
Atrial fibrillation				0.085
- Paroxysmal	631 (28.3%)	382 (26.7%)	249 (31.1%)	
- Persistent	421 (18.9%)	276 (19.3%)	145 (18.1%)	
- Permanent	1181 (52.9%)	774 (54.1%)	407 (50.8%)	
Symptomatic AF	1720 (77%)	1128 (78.8%)	592 (73.9%)	<b>0.009</b>
History of heart failure	628 (28.1%)	436 (30.4%)	192 (24%)	<b>0.001</b>
History of CAD	356 (15.9%)	232 (16.2%)	124 (15.5%)	0.656
CIED	216 (9.7%)	114 (8%)	102 (12.7%)	<b>&lt;0.001</b>
History of ischemic stroke/TIA	485 (21.7%)	292 (20.4%)	193 (24.1%)	<b>0.042</b>
Diabetes mellitus	610 (27.3%)	426 (29.7%)	184 (23%)	<b>0.001</b>
Hypertension	1641 (73.5%)	1067 (74.5%)	574 (71.7%)	0.143
Smoking	414 (18.5%)	262 (18.3%)	152 (19%)	0.692
Dyslipidemia	1320 (59.1%)	835 (58.3%)	485 (60.5%)	0.302
Renal replacement therapy	20 (0.9%)	15 (1%)	5 (0.6%)	0.309
Dementia	20 (0.9%)	12 (0.8%)	8 (1%)	0.699
Systemic embolism	22 (1%)	11 (0.8%)	11 (1.4%)	0.165
History of peripheral vascular disease	29 (1.3%)	17 (1.2%)	12 (1.5%)	0.534
History of carotid occlusive disease	8 (0.4%)	5 (0.3%)	3 (0.4%)	0.923
History of stent use	158 (7.1%)	103 (7.2%)	55 (6.9%)	0.773
History of CABG	49 (2.2%)	31 (2.2%)	18 (2.2%)	0.899
History of alcohol abuse,	73 (3.3%)	51 (3.6%)	22 (2.7%)	0.299
History of bleeding	241 (10.8%)	168 (11.7%)	73 (9.1%)	0.056
CKD	1226 (54.9%)	805 (56.2%)	421 (52.6%)	0.096
Anemia	899 (40.3%)	614 (42.9%)	285 (35.6%)	<b>0.001</b>
LVEF	59.7 $\pm$ 14.2	59.2 $\pm$ 14.5	60.5 $\pm$ 13.5	<b>0.036</b>
CHA <sub>2</sub> DS <sub>2</sub> -VASc score				0.051
- Low risk	77 (3.4%)	40 (2.8%)	37 (4.6%)	
- Intermediate risk	294 (13.2%)	183 (12.8%)	111 (13.9%)	
- High risk	1862 (83.4%)	1209 (84.4%)	653 (81.5%)	
HAS-BLED score				<b>0.039</b>

- 0	271 (12.1%)	165 (11.5%)	106 (13.2%)	
- 1-2	845 (37.8%)	522 (36.5%)	323 (40.3%)	
- ≥3	1117 (50%)	745 (52%)	372 (46.4%)	
Antiplatelet	277 (12.4%)	191 (13.3%)	86 (10.7%)	0.074
Anticoagulant	2233 (100%)	1432 (100%)	801 (100%)	-
- Warfarin	2233 (100%)	1432 (100%)	801 (100%)	-
- NOACs	0 (0.0%)	0 (0.0%)	0 (0.0%)	-
Beta blocker	1645 (73.7%)	1053 (73.5%)	592 (73.9%)	0.847
CCB	659 (29.5%)	426 (29.7%)	233 (29.1%)	0.743
Digitalis	371 (16.6%)	245 (17.1%)	126 (15.7%)	0.401
MRA	203 (9.1%)	137 (9.6%)	66 (8.2%)	0.295
Statin	1398 (62.6%)	882 (61.6%)	516 (64.4%)	0.185
ACEI/ARB	1115 (49.9%)	717 (50.1%)	398 (49.7%)	0.863
NSAID/Cox-2 inhibitor	37 (1.7%)	23 (1.6%)	14 (1.7%)	0.801

**Figure S1.** Comparison of incidence rate of clinical outcomes between patients who were ABC pathway compliant and not compliant (SSE = ischemic stroke/systemic embolism, ICH = intracranial hemorrhage)



**Figure S2.** Bar graphs of comparisons of incidence rate of clinical outcomes stratified by the 3 groups of ABC compliant status



**Figure S3.** Forest plot of unadjusted and adjusted hazard ratio of 3 groups of ABC pathway compliant status and clinical outcomes

