

Supplemental material – Sensitivity analysis – Cohort 2 - Cohort all patients newly treated with an anticoagulant therapy regardless of other potential concomitant therapies

Table 1 – Characteristics of Patients and Prescribers at Anticoagulant Treatment Initiation (2011-2015).

	VKA*	DOACs [†]
	N = 952,565	N = 661,089
Demographic characteristics		
Mean age (sd [§])	71.7 (15.3)	69.5 (13.8)
Male	48.4%	49.2%
Clinical characteristics		
High blood pressure	78.5%	71.3%
Ischemic heart disease	21.0%	11.9%
Heart failure	18.6%	8.8%
Diabetes	19.9%	15.7%
Cancer	16.7%	11.6%
Renal failure	9.3%	1.9%
Liver failure	1.6%	0.6%
Dementia	5.5%	2.4%
History Ischemic stroke	8.6%	5.0%
History of bleeding	6.8%	3.6%
HAS-BLED score, mean (sd)	2.3 (1.1)	2.0 (1.1)
CHA ₂ DS ₂ - VASc ₂ score, mean (sd)	3.3 (1.7)	2.8 (1.6)
Other treatment at cohort entry[¶]		
Aspirin	35.8%	28.9%
Nonsteroidal anti-inflammatory drugs	17.1%	28.4%
Antiplatelet Agents (other than Aspirin)	11.7%	7.4%
Corticosteroids	15.1%	12.7%
Prescriber of first anticoagulant		
General Practitioner	70.7%	54.1%
<i>Among General Practitioners</i>	64.7%	35.3%
Cardiologist	15.6%	21.7%
<i>Among Cardiologists</i>	50.0%	50.0%
Other specialist	5.8%	18.2%
Unknown	7.9%	6.0%

* Vitamin K agonist; † Direct oral anticoagulants; ‡, p value comparing VKA vs DOACs; § sd: standard deviation; || defined in the 12 months prior to cohort entry; ¶ defined in the 3 months prior to cohort entry

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Table 2 – Characteristics of Patients and Prescribers at Anticoagulant Treatment Initiation in the Sub-Group of Patients Receiving a Direct Oral Anticoagulant (2011-2015) AC

	Dabigatran N = 174,423	Rivaroxaban N = 419,780	Apixaban N = 66,886
Demographic characteristics			
Mean age (sd [†])	71.5 (12.5)	67.8 (14.3)	74.5 (11.8)
Male	49.6%	49.0%	49.4%
Clinical characteristics[‡]			
High blood pressure	76.9%	66.9%	84.4%
Ischemic heart disease	14.8%	10.4%	14.0%
Heart failure	11.0%	6.9%	15.3%
Diabetes	16.9%	14.6%	18.8%
Cancer	12.7%	11.3%	10.8%
Renal failure	1.9%	1.7%	3.7%
Liver failure	0.6%	0.6%	0.6%
Dementia	2.6%	2.2%	3.1%
History of ischemic stroke	6.5%	3.9%	8.4%
History of bleeding	3.5%	3.6%	4.0%
HAS-BLED score, mean (sd)	2.2 (1.0)	1.9 (1.1)	2.4 (1.0)
CHA ₂ DS ₂ - VASc ₂ , mean (sd)	3.0 (1.6)	2.6 (1.6)	3.4 (1.5)
Other treatments at cohort entry[§]			
Aspirin	32.8%	25.9%	37.6%
Nonsteroidal anti-inflammatory drugs	28.3%	29.8%	19.4%
Antiplatelet Agents (other than Aspirin)	8.7%	6.4%	10.1%
Corticosteroids	11.9%	13.1%	11.7%
Prescriber of first anticoagulant			
General Practitioner	48.2%	56.9%	51.4%
Cardiologist	24.1%	19.6%	29.2%
Other specialist	20.9%	18.0%	12.0%
Unknown	6.8%	5.5%	7.4%

* *Direct oral anticoagulants*, † Standard deviation, ‡ defined in the 12 months prior to cohort entry, § defined in the 3 months prior to cohort entry

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Table 3 – Multivariate analysis of the determinants associated with DOAC initiation according to year of therapy initiation.

Characteristics at treatment initiation	2011 N = 319*,372		2012 N = 353,242		2013 N = 327,150		2014 N = 311,352		2015 N =275,538	
	Adjusted OR	CI 95%*	Adjusted OR	CI 95%	Adjusted OR	CI 95%	Adjusted OR	CI 95%	Adjusted OR	CI 95%
Demographic characteristics										
Age										
< 65 years	0.57	0.56 – 0.59	0.63	0.62 – 0.64	0.74	0.72 – 0.76	0.81	0.79 – 0.82	0.81	0.79 – 0.83
65 –74 years	1.0		1.0		1.0		1.0		1.0	
>= 75 years	0.56	0.55 – 0.58	0.76	0.75 – 0.78	0.69	0.68 – 0.70	0.59	0.58 – 0.60	0.66	0.65 – 0.67
Sex (Male)	0.86	0.84 – 0.88	0.98	0.96 – 0.99	1.09	1.07 – 1.11	1.08	1.06 – 1.09	1.06	1.04 – 1.08
Clinical characteristics[†]										
High blood pressure	0.76	0.74 – 0.78	0.90	0.88 – 0.92	0.95	0.93 – 0.97	0.89	0.87 – 0.91	0.87	0.85 – 0.89
Ischemic heart disease	0.78	0.76 – 0.81	0.81	0.79 – 0.83	0.76	0.75 – 0.78	0.74	0.72 – 0.76	0.77	0.75 – 0.80
Heart failure	0.15	0.14 – 0.16	0.56	0.54 – 0.57	0.63	0.62 – 0.64	0.58	0.56 – 0.59	0.64	0.63 – 0.66
Diabetes	0.89	0.86 – 0.92	0.90	0.88 – 0.92	0.89	0.87 – 0.91	0.89	0.87 – 0.91	0.91	0.89 – 0.93
Cancer	0.71	0.69 – 0.73	0.81	0.79 – 0.83	0.75	0.73 – 0.76	0.73	0.72 – 0.75	0.70	0.68 – 0.72
Renal failure	0.29	0.27 – 0.32	0.30	0.29 – 0.32	0.23	0.22 – 0.24	0.22	0.21 – 0.23	0.26	0.25 – 0.27
Liver failure	0.50	0.44 – 0.57	0.50	0.46 – 0.55	0.47	0.43 – 0.50	0.43	0.40 – 0.47	0.40	0.37 – 0.44
Dementia	0.29	0.26 – 0.31	0.56	0.54 – 0.59	0.61	0.59 – 0.63	0.60	0.58 – 0.63	0.63	0.60 – 0.66
History of Ischemic Stroke	0.24	0.22 – 0.26	0.66	0.64 – 0.68	0.76	0.74 – 0.78	0.74	0.72 – 0.76	0.81	0.78 – 0.84
History of bleeding	1.00	0.95 – 1.05	0.70	0.68 – 0.73	0.54	0.52 – 0.56	0.53	0.51 – 0.55	0.54	0.52 – 0.56
Prescriber of first anticoagulant										
General Practitioner	1.0		1.0		1.0		1.0		1.0	
Cardiologist	0.26	0.25 – 0.28	1.91	1.87 – 1.95	2.86	2.80 – 2.92	2.78	2.72 – 2.84	2.67	2.60 – 2.73
Other specialists/Unknown	7.01	6.85 – 7.18	3.76	3.69 – 3.84	1.83	1.79 – 1.87	1.79	1.75 – 1.82	1.55	1.51 – 1.58
Other treatments at cohort entry[‡]										
Aspirin	0.71	0.69 – 0.73	1.00	0.98 – 1.02	0.98	0.96 – 1.00	0.91	0.90 – 0.93	0.87	0.85 – 0.88
NSAID	2.77	2.71 – 2.83	1.93	1.90 – 1.97	1.57	1.54 – 1.60	1.56	1.53 – 1.59	1.57	1.53 – 1.60
Antiplatelet Agents	0.64	0.61 – 0.68	0.94	0.91 – 0.97	0.83	0.81 – 0.85	0.75	0.72 – 0.77	0.76	0.73 – 0.78
Corticosteroids	0.60	0.58 – 0.62	0.70	0.68 – 0.72	0.79	0.77 – 0.80	0.84	0.82 – 0.86	0.87	0.85 – 0.89
Time of anticoagulant initiation										
1 st term of the year	1.0		1.0		1.0		1.0		1.0	
2 nd term of the year	1.02	0.99 – 1.05	1.35	1.32 – 1.38	1.05	1.03 – 1.07	1.12	1.10 – 1.14	1.10	1.08 – 1.13
3 rd term of the year	0.81	0.78 – 0.83	2.22	2.17 – 2.28	0.96	0.94 – 0.98	1.09	1.07 – 1.12	1.12	1.10 – 1.15
4 th term of the year	1.32	1.29 – 1.37	5.92	5.79 – 6.05	0.69	0.68 – 0.70	1.38	1.35 – 1.41	1.31	1.28 – 1.34

* 95% Confidence interval; † defined in the 12 months prior to cohort entry; ‡ defined in the 3 months prior to cohort entry