

### Appendix 3: Characteristics of 23 included randomised trials in stroke prevention in AF (references below)

Study  (Centre type) [Countries]	Study type  Sponsor (sponsor's role)	Age eligibility (Mean age) [% Male]	AF type	No. rand.	Interventions compared	Tmt duration (months)	Mean time in therapeutic range (INR)	Outcomes	Time of outcome assessment (months)
<b>ACTIVE W(1)</b>  (Multicentre)  [North & South America, Europe, Russia, Israel, Australia, Asia, South Africa]	Phase III  Sanofi -Aventis and Bristol-Myers Squibb (The sponsor contributed to the study design “but had no role in data collection, data analysis, data Interpretation, or writing of the report”)	≥18 yrs. (70.2 yrs.)  [66.1%]	Non- valvular  ECG diagnosed	6706	<b>Antiplatelet</b> 1. Clopidogrel 75mg + (aspirin 75- 100mg) od  <b>Warfarin</b> 2. INR 2-3 (some patients may have received other vitamin K antagonists in use in their country)	Not given	63.8%	Efficacy-All stroke, ischemic stroke, haemorrhagic stroke, MI  Safety-All bleeding, major bleeding, minor bleeding, fatal bleeding, death (all causes)	15.4
<b>AFASAK(2)</b>  (Two centres)  [Denmark]	Phase III  NycoMed AS, Oslo, Norway; Henrik Henriksen's Foundation; Kathrine and Vigo Skovgaard's Foundation; and Danish Medical Research Foundation (Not stated)	≥18 yrs. (74.2 yrs.)  [53.6%]	Chronic non- valvular  ECG diagnosed	1007	<b>Warfarin</b> 1. INR 2-3  <b>Antiplatelet (aspirin)</b> 2. 75mg od  3. Placebo od	24	73%	Efficacy-All stroke, fatal stroke, minor ischemic stroke, TIA  Safety-Bleeding, death (all causes)	24

<b>AFASAK II(3)</b>	Phase III	≥18 yrs. (74.2 yrs.)	Chronic non-valvular	677	<b>Warfarin</b>	42		Efficacy-All stroke, ischemic stroke, haemorrhagic stroke, fatal stroke, stroke or systemic embolism, TIA, MI	42
(Single centre)	The Danish Heart Foundation,	[60%]	ECG diagnosed		1. 1.25mg/day fixed dose 2. 1.25mg/day fixed dose plus aspirin 300mg/day od 3. INR 2-3		73%		
[Denmark]	Copenhagen; Nycomed DAK A/S Roskilde, Denmark; Du Pont Pharma, Wilmington, Del; The Danish Foundation for Medical Research for the Region of Copenhagen; and many other non-industry funders (Not stated)				<b>Aspirin</b> 4. 300mg od			Safety-Major bleeding, minor bleeding, intracranial bleeding, death (all causes)	
<b>AF-ASA-VKA-CHINA(4)</b>	Phase III	≥80 yrs. (NR)	Persistent & Permanent non-valvular	110	<b>Warfarin</b>	24	NR	Efficacy-Stroke or systemic embolism, ischemic stroke, MI	1, 6, 12, 18, and 24
(Two centres)	Grant from talent pool subject of Shanghai Shi Dong Hospital	[NR]	Confirmed by the case history & ECG		<b>Antiplatelet (aspirin)</b> 2. 100mg od			Safety-All bleeding, major bleeding, minor bleeding, fatal bleeding, death (all causes)	
[China]	(Not applicable)								

<b>AF-DABIG-VKA-JAPAN(5)</b>	Phase II Boehringer Ingelheim (The sponsor was involved in the trial)	≥20 yrs. (NR) [NR]	Paroxysmal, persistent or permanent non-valvular  ECG diagnosed	174	<b>Dabigatran</b> 1. 110mg bd 2. 150mg bd  <b>Warfarin</b> 3. INR 2-3 (INR ≥1.6 to ≤2.6 in ≥70 yrs.)	3   NR	Efficacy-Stroke or systemic embolism  Safety-All bleeding, major bleeding, composite clinically relevant bleeding	3	
<b>AF-EDOX-VKA-ASIA(6)</b>	Phase II Daiichi Sankyo Co., Ltd., Tokyo, Japan (The sponsor had influence on the study design, data management & analysis, and key decisions)	18-80 yrs. (65.1 yrs.) [65.4%]	Non-valvular  ECG diagnosed  CHADS <sub>2</sub> ≥ 1	235	<b>Edoxaban</b> 1. 30mg od 2. 60mg od  <b>Warfarin</b> 3. INR 2-3	3 (Edoxaban)  6 (Warfarin)	45.1%	Efficacy-Stroke or systemic embolism  Safety-All bleeding, major bleeding, minor bleeding, clinically relevant non-major bleeding	3
<b>AF-EDOX-VKA-JAPAN(7)</b>	Phase II Daiichi Sankyo Co., Ltd., Tokyo, Japan (The funder “had input on the study design and data analysis & interpretation of results and wrote the clinical study report”)	≥20 yrs. (NR) [NR]	Non-valvular  ECG diagnosed  CHADS <sub>2</sub> ≥ 1	536	<b>Edoxaban</b> 1. 30mg od 2. 45mg od 3. 60mg od  <b>Warfarin</b> 4. INR 2-3 (INR 1.6-2.6 in ≥70 yrs.)	3   83% (≥70 yrs.) 73% (<70 yrs.)		Efficacy-Stroke or systemic embolism  Safety-All bleeding, major bleeding, clinically relevant non-major bleeding, composite clinically relevant bleeding	3

<b>AF-EDOX-VKA-MULTI(8)</b>	Phase II Daiichi Sankyo Co., Ltd., Tokyo, Japan (Not clear)	18-85 yrs. (65.1 yrs.) [62.1%]	Persistent non-valvular ECG diagnosed CHADS <sub>2</sub> ≤2	1146	<b>Edoxaban</b> 1. 30mg od 2. 60mg od 3. 30mg bd 4. 60mg bd  <b>Warfarin</b> 5. INR 2-3	3	49.7%	Efficacy-Stroke or systemic embolism, MI, hospital admission  Safety-All bleeding, major bleeding, minor bleeding, clinically relevant non-major Bleed, composite clinically relevant bleeding, death (cardiovascular)	3
<b>AF-VKA-ASA-CHINA(9)</b>	Phase III 10th National Five-year Project of China (Not applicable)	50-80 yrs. (NR) [NR]	Non-valvular Diagnosis based on medical history, ECG and/or Holter recordings	690	<b>Warfarin</b> 1. INR 2.1-2.5 2. INR 1.6-2  <b>Antiplatelet (aspirin)</b> 3. 200mg od	24 (mean 15)	NR	Efficacy-All stroke, ischemic stroke, haemorrhagic stroke, TIA  Safety-Major bleeding, minor bleeding, death (all causes)	24

<b>ARISTOTLE(10-20)</b>	Phase III Bristol-Myers Squibb and Pfizer (The trial was designed in conjunction with the sponsors & “The primary analyses were performed both at Bristol-Myers Squibb and at the Duke Clinical Research Institute”)	≥18 yrs. (Median 70 yrs.) [64.7%]	Non-valvular or flutter ECG diagnosed	1820 1	<b>Apixaban</b> 1. 5mg bd <b>Warfarin</b> 2. INR 2-3	21.6 (median) 62.2%	Efficacy-All stroke, ischemic stroke, haemorrhagic stroke, stroke or systemic embolism, MI  Safety-All bleeding, major bleeding, composite clinically relevant bleeding, intracranial bleeding, death (all causes)	21.6 (median for Intracranial bleeding)
<b>ARISTOTLE-J(21)</b>	Phase II Pfizer Inc. and Bristol-Myers Squibb (Not clear)	≥20 yrs. (70.3 yrs.) [82.9%]	Non-valvular Diagnosis based on ECG, Holter recording or intracardiac electrogram	222	<b>Apixaban</b> 1. 2.5mg bd 2. 5mg bd <b>Warfarin</b> 3. INR 2-3 (INR 2-2.6 in ≥70 yrs.)	3 60%	Efficacy-Stroke or systemic embolism, ischaemic stroke, TIA  Safety-All bleeding, major bleeding, minor bleeding, clinically relevant non-major bleeding, composite clinically relevant bleeding, death (all causes)	3

<b>AVERROES(22-25)</b>	Phase III  (Multicentre)  [North & South America, Europe, Russia, Israel, Australia, Asia, South Africa]	≥50 yrs. (70 yrs.)  [58.5%]	Non-valvular  ECG diagnosed	5599	<b>Apixaban</b> 1. 5mg bd (2.5mg if >80 yrs./≤60 kg/renal status)  <b>Antiplatelet (aspirin)</b> 2. 81-324mg od	13.1 (mean)	Efficacy-All stroke, stroke or systemic embolism, ischaemic stroke, haemorrhagic stroke, MI  Safety-Major bleeding, minor bleeding, clinically relevant non-major bleeding, intracranial bleeding, fatal bleeding, death (cardiovascular), death (all causes)	13.1 (mean)
<b>BAFTA(26)</b>	Phase III  (Multicentre)  [UK]	≥75 yrs. (81.5 yrs.)  [54.6%]	Non-valvular or atrial flutter  ECG diagnosed	973	<b>Antiplatelet (aspirin)</b> 1. 75mg od  <b>Warfarin</b> 2. INR 2-3	32.4 (mean)	Efficacy-All stroke, MI  Safety-Major bleeding, death (all causes)	32.4 (mean)

<b>Chinese ATAFS(27)</b>  (Multicentre)  [China]	Phase III  Not disclosed	40-80 yrs. (63.3 yrs.)  [59.7%]	Non- valvular	704	<b>Antiplatelet (aspirin)</b> 1. 150-160mg od  <b>Warfarin</b> 2. INR 2-3 (INR 1.6-2.5 in >75 yrs.)	Not reported   NR	Efficacy-All stroke  Safety-Death (all causes)	2-24 (median=19)
<b>ENGAGE AF- TIMI 48(28, 29)</b>  (Multicentre)  [North & South America, Europe, Russia, Israel, Australia, Asia, South Africa]	Phase III  Daiichi Sankyo Pharma Development (Not clear)	≥21 yrs. (NR)  [61.9%]	Non- valvular  ECG diagnosed  CHADS <sub>2</sub> ≥2	2110 5	<b>Edoxaban</b> 1. 30mg od 2. 60mg od  <b>Warfarin</b> 3. INR 2-3	29.8 (median)   64.9%	Efficacy-All stroke, ischemic stroke, haemorrhagic stroke, fatal stroke, stroke or systemic embolism, MI  Safety-Major bleeding, minor bleeding, fatal bleeding, intracranial bleeding, clinically relevant non-major bleeding, composite clinically relevant bleeding, death (cardiovascular), death (all causes)	29.8 (median)

<b>EXPLORE-Xa(30)</b>	Phase II	≥18 yrs. (73 yrs.)	New or existing non-valvular or atrial flutter	508	<b>Betrixaban</b> 1. 40mg od 2. 60mg od 3. 80mg od	4.9 (mean)	Efficacy-All stroke	4.9 (mean)
(Multicentre)	Portola Pharmaceuticals, South San Francisco, CA, USA	[66.5%]	Diagnosed by Holter, ECG, rhythm strip, pacemaker, or other intracardiac recording		<b>Warfarin</b> 4. INR 2-3	63.4%	Safety-All bleeding, major bleeding, minor bleeding, clinically relevant non-major bleeding, composite clinically relevant bleeding, death (all causes)	
[USA, Canada & Germany]	(Not stated)							
<b>J-ROCKET AF(31)</b>	Phase III	≥20 yrs. (71.1 yrs.)	Non-valvular	1280	<b>Rivaroxaban</b> 1. 15mg od	30	Efficacy-All stroke, ischemic stroke, haemorrhagic stroke, stroke or systemic embolism, MI	30
(Multicentre)	Bayer Yakuhin Ltd	[80.6%]	ECG diagnosed		<b>Warfarin</b> 2. INR 2-3 (INR 1.6-2.6 in ≥70 yrs.)	65%	Safety-Composite clinically relevant bleeding, death (cardiovascular), death (all causes)	
[Japan]	(The funder was “responsible for trial design and study data collection”)							



<b>PATAF(32)</b>	Phase III	≥60 yrs. (74.8 yrs.)	Chronic or intermittent	729	<b>Warfarin</b> 1. INR <2 2. INR 2.5-3.5 (some patients received other coumarins – phenprocoumon or acenocoumarol)	32.4 (mean)	NR	Efficacy-All stroke, ischaemic stroke, arterial event	32.4 (mean)
(Multicentre)	Prevention fund (grant 002817010),	[44.9%]	ECG diagnosed		<b>Antiplatelet (aspirin)</b> 3. 150mg od			Safety-Death (cardiovascular), death (all causes)	
[Netherlands]	Zorg Onder-zoek Nederland; Roche Nicholas BV, Bladel, Holland, donated aspirin (Not stated)								
<b>PETRO(33)</b>	Phase II	≥18 yrs. (69.5 yrs.)	Permanent, persistent, & paroxysmal non- valvular with coronary artery disease	502*	<b>Dabigatran</b> 1. 50mg bd 2. 50mg + (aspirin 81mg) bd 3. 50mg + (aspirin 325mg) bd 4. 150mg bd 5. 150mg + (aspirin 81mg) bd 6. 150mg + (aspirin 325mg) bd 7. 300mg bd 8. 300mg + (aspirin 81mg) bd 9. 300mg + (aspirin 325mg) bd	3		Efficacy-Stroke or Systemic embolism	3
(Multicentre)	Boehringer Ingelheim Pharmaceuticals, Biberach, Germany (The funder was responsible for the statistical analysis conducted according to a prospectively designed plan approved by the steering committee)	[81.9%]	Diagnosis not explained		<b>Warfarin</b> 10. INR 2-3		57.2%	Safety-All bleeding, major bleeding, composite clinically relevant bleeding	
[USA, Denmark, Netherlands & Sweden]									

<b>RE-LY(34, 35)</b>	Phase III	≥18 yrs. (71 yrs.)	Non- valvular	1811 3	<b>Dabigatran</b> 1. 110mg bd 2. 150mg bd	24 (mean)	Efficacy-Stroke or systemic embolism, ischaemic stroke, haemorrhagic stroke, MI, PE, Hospital admission	24 (mean)
(Multicentre)	Boehringer Ingelheim	[63.6%]	ECG diagnosed		<b>Warfarin</b> 3. INR 2-3	64%		
[North & South America, Europe, Russia, Israel, Australia, Asia, South Africa]	(The sponsor contributed in the design, conduct, and reporting of the study)		Mean CHADS <sub>2</sub> 2.1				Safety-Major bleeding, minor bleeding, intracranial bleeding, extra- cranial minor bleeding, death (cardiovascular), death (all causes)	
<b>ROCKET AF(36-39)</b>	Phase III	≥18 yrs. (Median 73 yrs.)	Non- valvular	1426 4	<b>Rivaroxaban</b> 1. 20mg od	19.4 (median)	Efficacy-All stroke, stroke or systemic embolism, MI	19.4 (median)
(Multicentre)	Johnson & Johnson and Bayer	[60.3%]	ECG diagnosed		<b>Warfarin</b> 2. INR 2-3	55%	Safety-Major bleeding, clinically relevant non-major bleeding, composite clinically relevant bleeding, fatal bleeding, intracranial bleeding, death (all causes)	
[North & South America, Europe, Russia, Israel, Australia, New Zealand, Asia, South Africa]	(The sponsor was not involved in the coordination of the trial, data management, and analyses)		CHADS <sub>2</sub> ≥2					

<b>SPAF II(40)</b>	Phase III	Not clear (NR)	Non- valvular	1100	<b>Warfarin</b> 1. INR 2-4.5 in <75 yrs. 2. INR 2.0-4.5 in >75 yrs.	37.2 (mean for age <75 >75 years)	NR	Efficacy-Stroke or systemic embolism, ischaemic stroke, MI, TIA	27.6 (mean)
(Multicentre)	The Division of Stroke and Trauma, National Institute of Neurological Disorders and Stroke (Not clear)	[NR]			<b>Antiplatelet (aspirin)</b> 3. 325mg (in <75 yrs.) od 4. 325mg (in >75 yrs.) od	24 (mean for age >75 years)		Safety-Intracranial bleeding, death (all causes)	
[USA]									
<b>WASPO(41)</b>	Phase III	>80 & <90 yrs. (Median 83 yrs.)	Permanent non- valvular	75	<b>Warfarin</b> 1. INR 2-3	12	69.2%	Efficacy-All stroke, TIA	12
(Multicentre)	Not declared				<b>Antiplatelet (aspirin)</b> 2. 300mg od			Safety-Death (all causes)	
[UK]		[47%]	ECG diagnosed						

AF = atrial fibrillation; NVAF = non-valvular atrial fibrillation; MI = myocardial infarction; TIA = transient ischaemic attack; PE = pulmonary embolism; INR = international normalized ratio; ECG = electrocardiogram; rand = randomised; od = once daily; bd = twice daily; Tmt = treatment; NR = not reported.

\*Our results are based on 515 patients as reported in the results tables; the trial report is inconsistent in this regard.

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