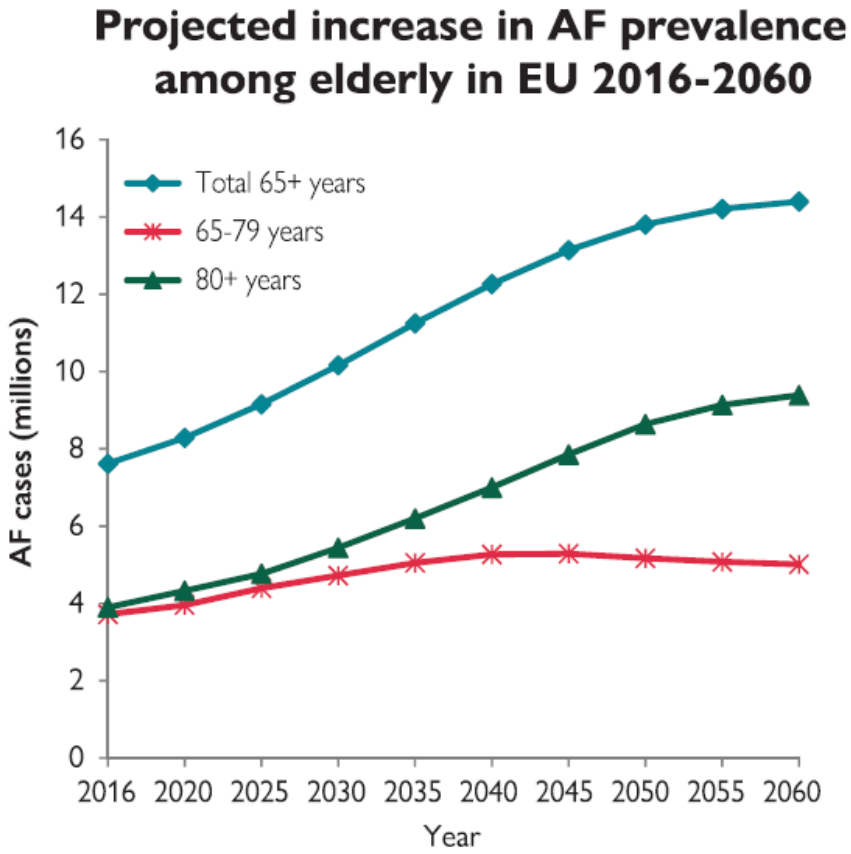
Update on NOAC Management of Fragile Patient with AF

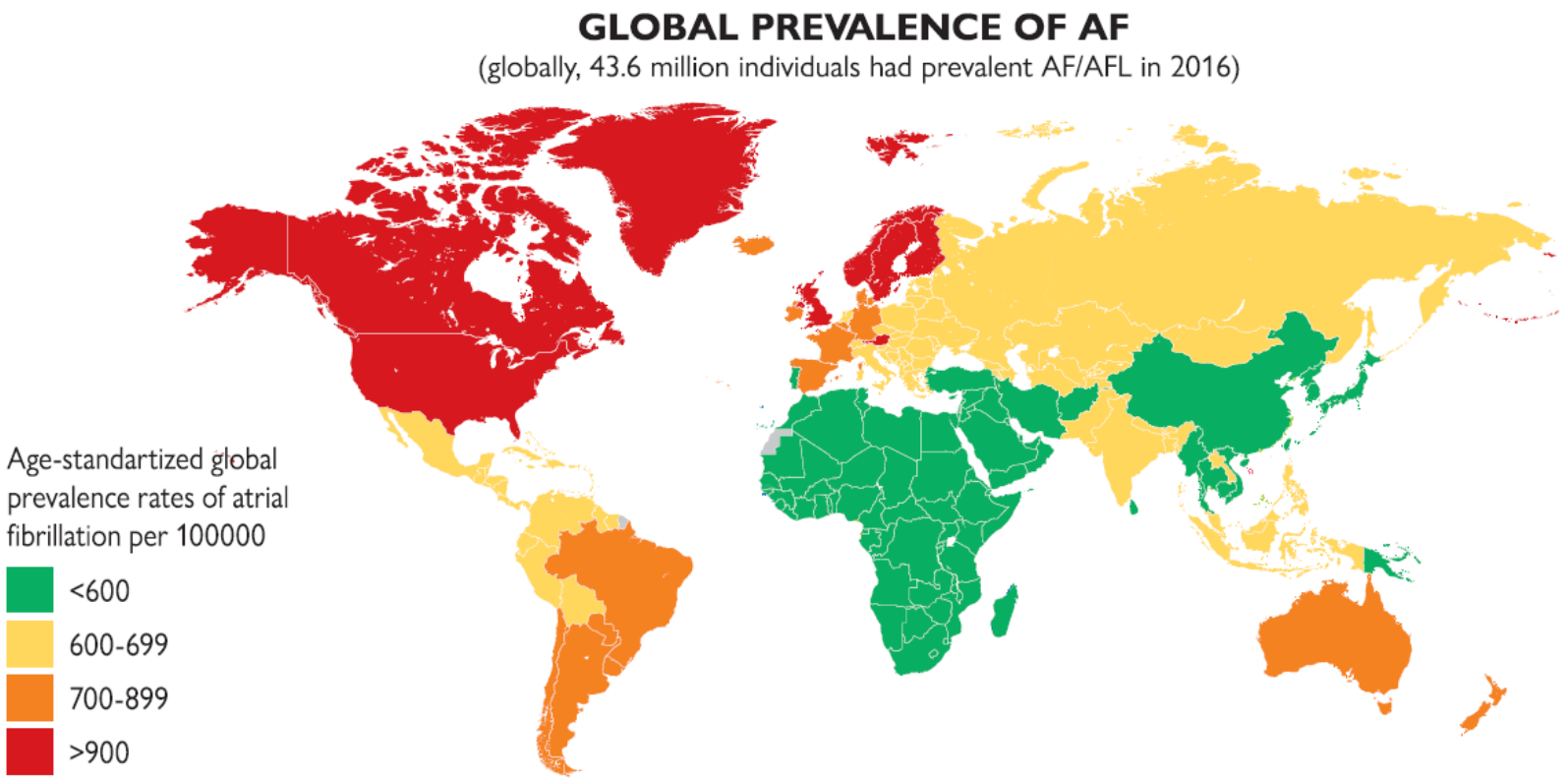
: Focused on Rivaroxaban

Youngjin Cho, MD, PhD
Division of Cardiology, Department of Internal Medicine
Seoul National University Bundang Hospital

SAMJIN 삼진제약

Global Prevalence of Atrial Fibrillation





Eur Heart J. 2021;42(5);373-498

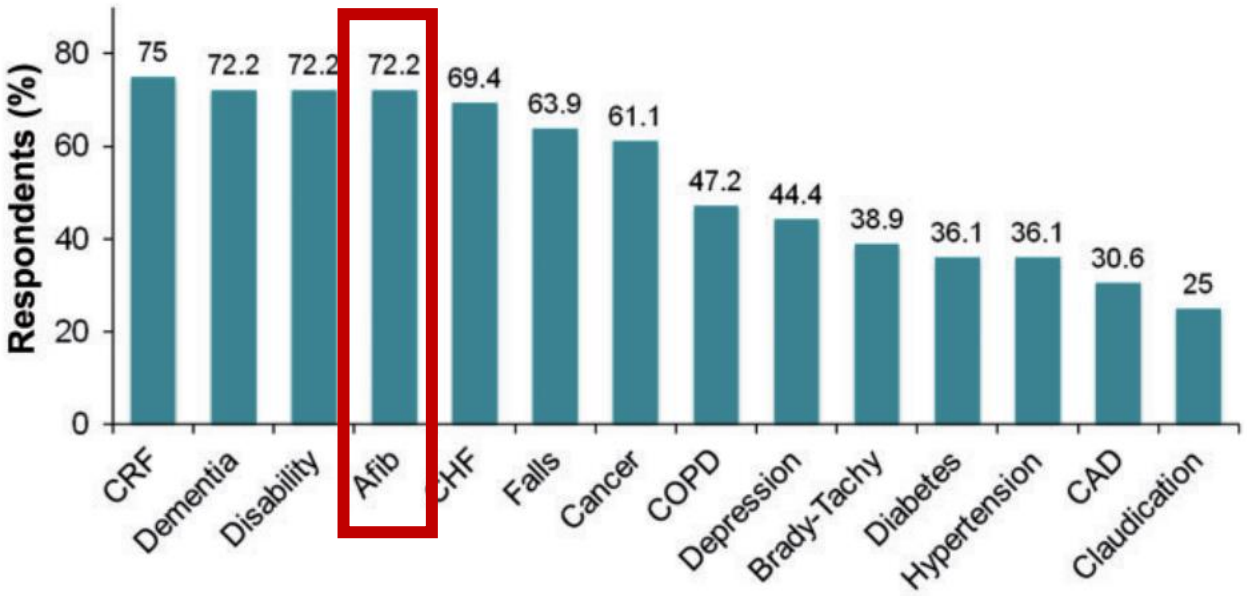
NOAC use in Frail patients

Very Fit	People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.
Well	People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally.
Managing Well	People whose medical problems are well controlled but are not regularly active beyond routine walking.
Vulnerable	While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day.
Mildly Frail	These people often have more evident slowing and need help in high order with ADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.
Moderately Frail	People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.
Severely Frail	Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).
Very Severely Frail	Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.
Terminally Ill	Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.

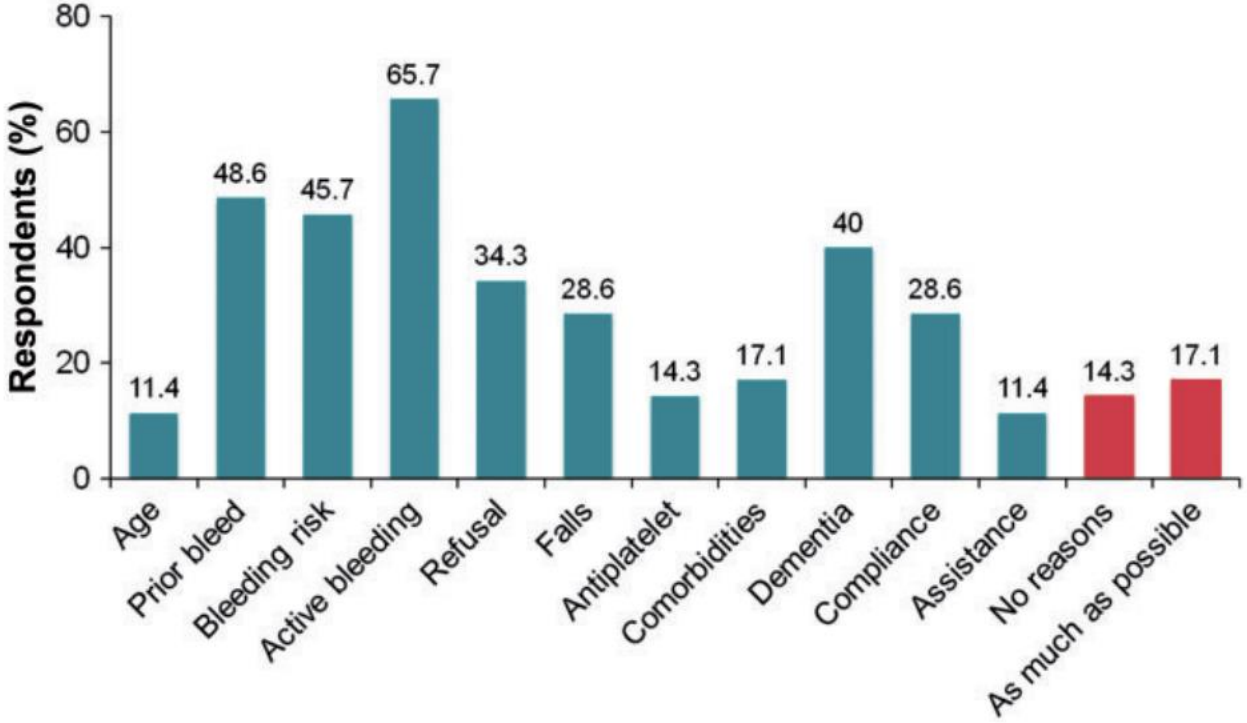
The 'Canadian Study of Health and Aging' (CHSA) Clinical Frailty Scale,
based on comprehensive geriatric assessment including structured interview

J Steffel et al. Europace. 2021;23(10):1612-1676

Fragile Patient with AF



Comorbidities most frequently associated to the frailty syndrome according to the participants' opinion



Most important reasons not to prescribe an anticoagulant drug to a frail patient with atrial fibrillation

S. Fumagalli et al. *Europace*. 2017;19(11):1896-1902

Fragile Patient with AF

- Elderly

- Low Body Weight

- Kidney Disease

Prediction of Risk for AF

TABLE 1 CHARGE-AF Scoring System for Prediction of Risk for AF

	Coefficient × per Increment
Age	0.508 x (per 5 yrs)
Height	0.248 x (per 10 cm)
Weight	0.115 x (per 15 kg)
Systolic BP	0.197 x (per 20 mm Hg)
Diastolic BP	−0.101 x (per 10 mm Hg)
Current smoker	0.359
Antihypertensive medication	0.349
Diabetes	0.237
Congestive heart failure	0.701
Myocardial infarction	0.496
LVH by electrocardiogram	
PR interval (<120 vs. 120–199 ms)	
PR interval (>199 vs. 120–199 ms)	

TABLE 2 HATCH Score for Prediction of Progression From Paroxysmal to More Persistent AF and Prediction of New AF After Atrial Flutter Ablation

H	Hypertension	1
A	Age ≥75 yrs	1
T	Transient ischemic attack or stroke	2
C	Chronic obstructive pulmonary disease	1
H	Heart failure	2

MK. Chung et al. J Am Coll Cardiol. 2020;75(14):1689-1713

Prediction of Risk for AF

TABLE 3 $CHADS_2$ Score for Prediction of Stroke in Atrial Fibrillation Patients

C	Congestive heart failure	1
H	Hypertension (>140/90 mm Hg)	1
A	Age ≥75 yrs	1
D	Diabetes mellitus	1
S_2	Prior TIA or stroke	2

TABLE 4 CHA_2DS_2-VASc Score for Prediction of Stroke in Atrial Fibrillation Patients

C	Congestive heart failure	1
H	Hypertension (>140/90 mm Hg)	1
A	Age ≥75 yrs	2
D	Diabetes mellitus	1
S_2	Prior TIA or stroke	2
V	Vascular disease (MI, aortic plaque, and so on)	1
A	Age 65–74 yrs	1
Sc	Sex category (female = 1 point)	1

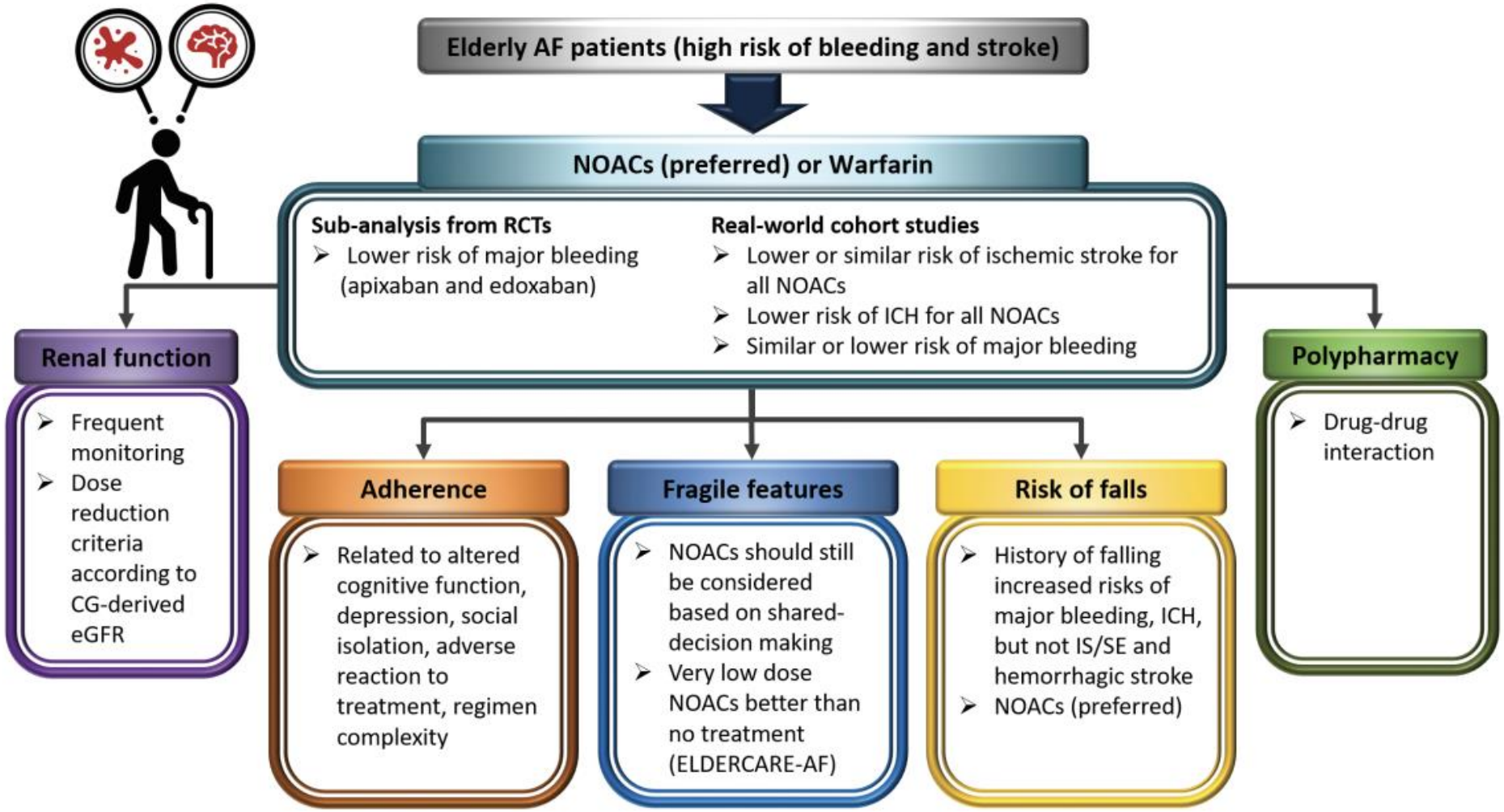
TABLE 5 HAS-BLED Score for Prediction of Bleeding Risk

H	Hypertension	1
A	Abnormal liver or renal function	1 point each
S	Stroke	1
B	Bleeding	1
L	Labile INRs	1
E	Elderly (>65)	1
D	Drugs or ETOH	1 point each

ETOH = ethyl alcohol; INR = international normalized ratio.

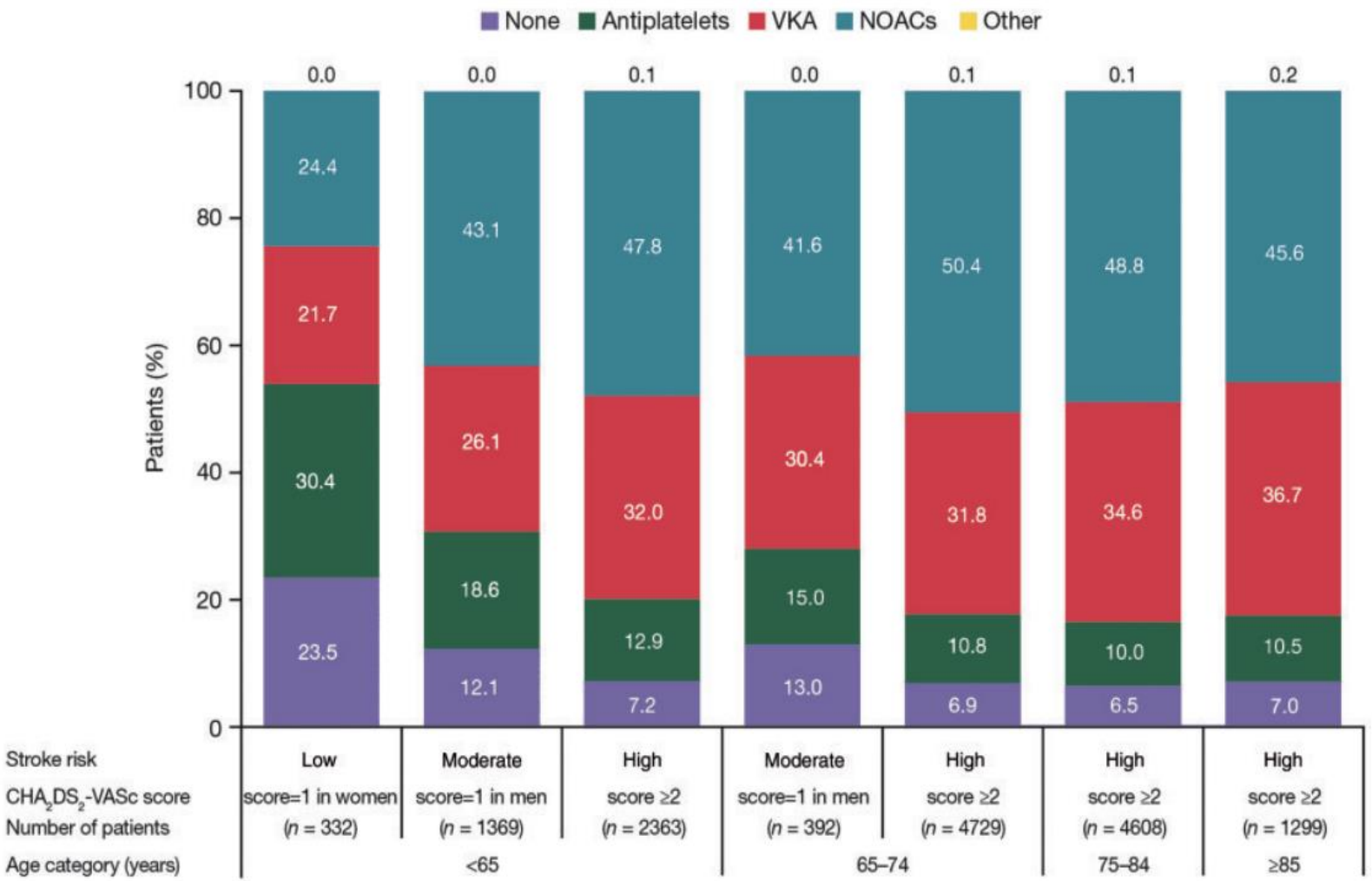
MK. Chung et al. J Am Coll Cardiol. 2020;75(14):1689-1713

Considerations in Elderly patients



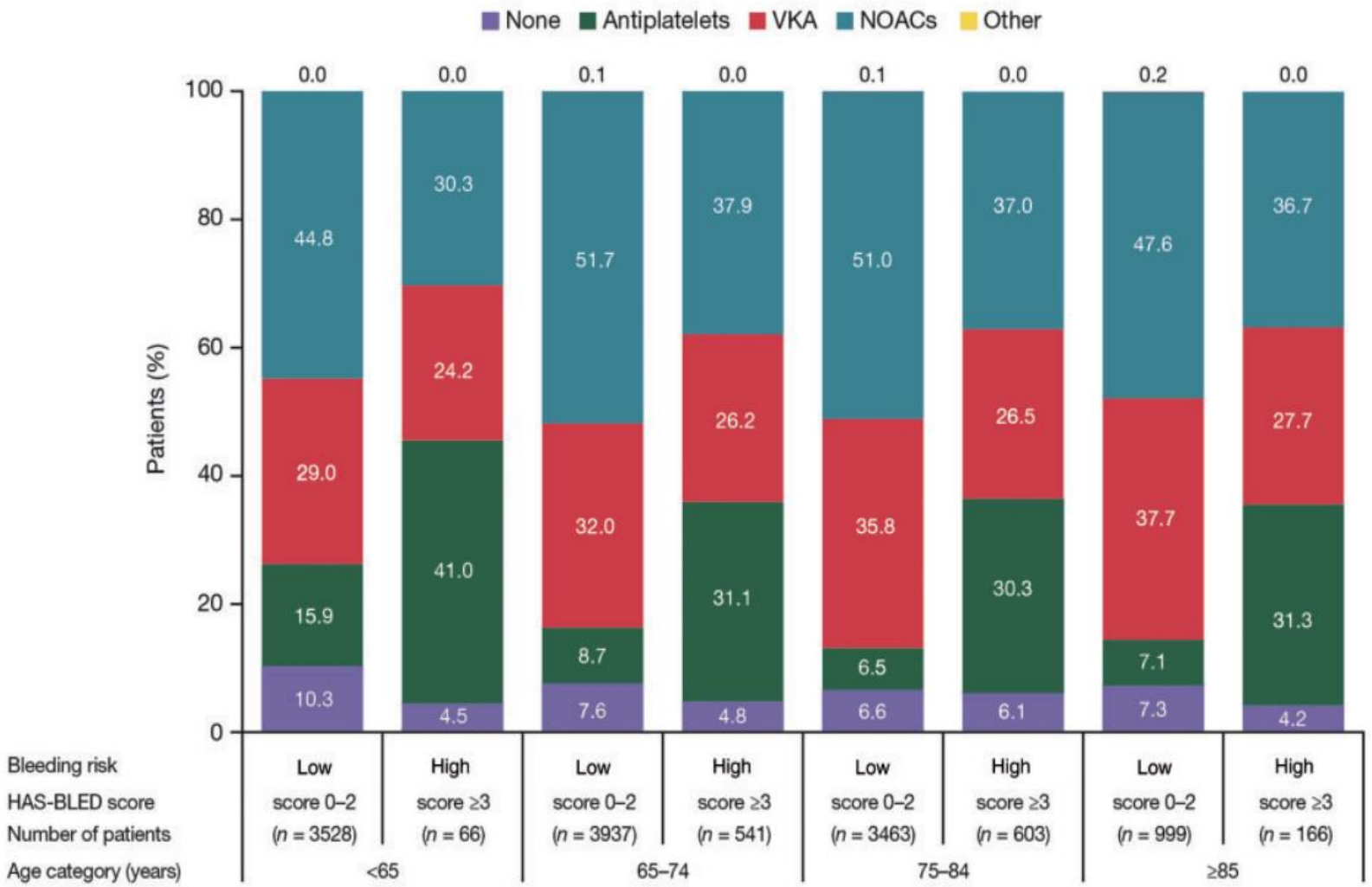
Jo-Nan Liao et al. *Kardiol Pol.* 2022;80(2):128-136

Antithrombotic Treatment in relation to Age



M. Mazurek et al.Europace 2020;22(1):47-57

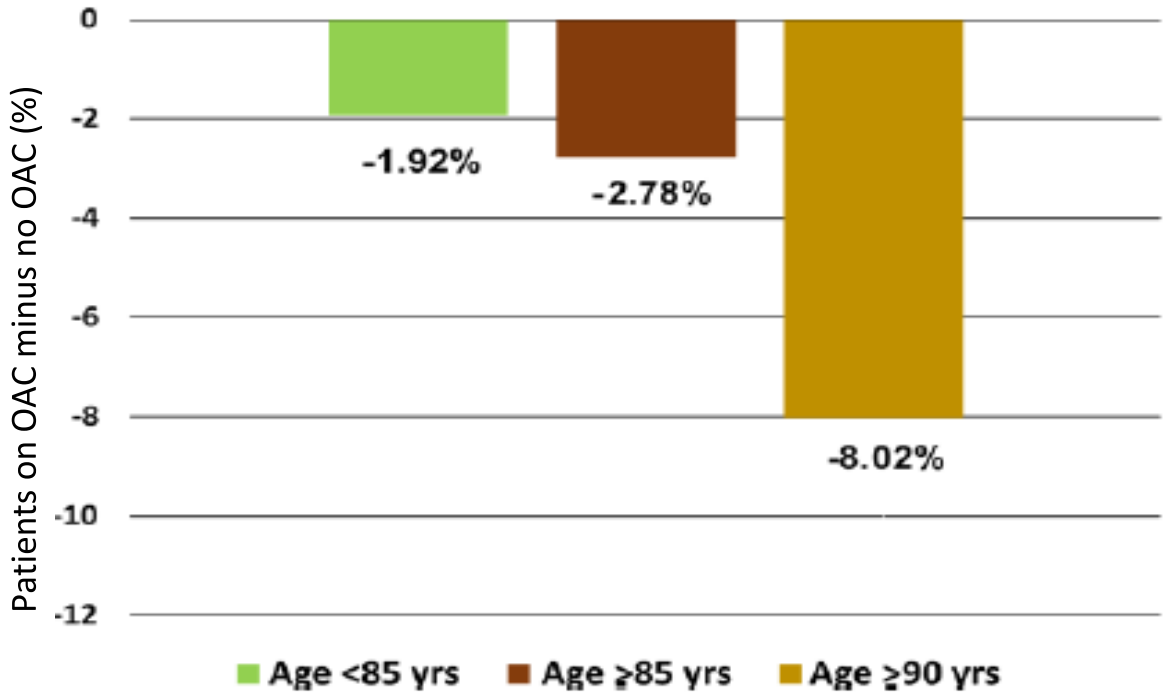
Antithrombotic Treatment in relation to Age



M. Mazurek et al.Europace 2020;22(1):47-57

PREFER (European registry) study – OAC in patients ≥ 85

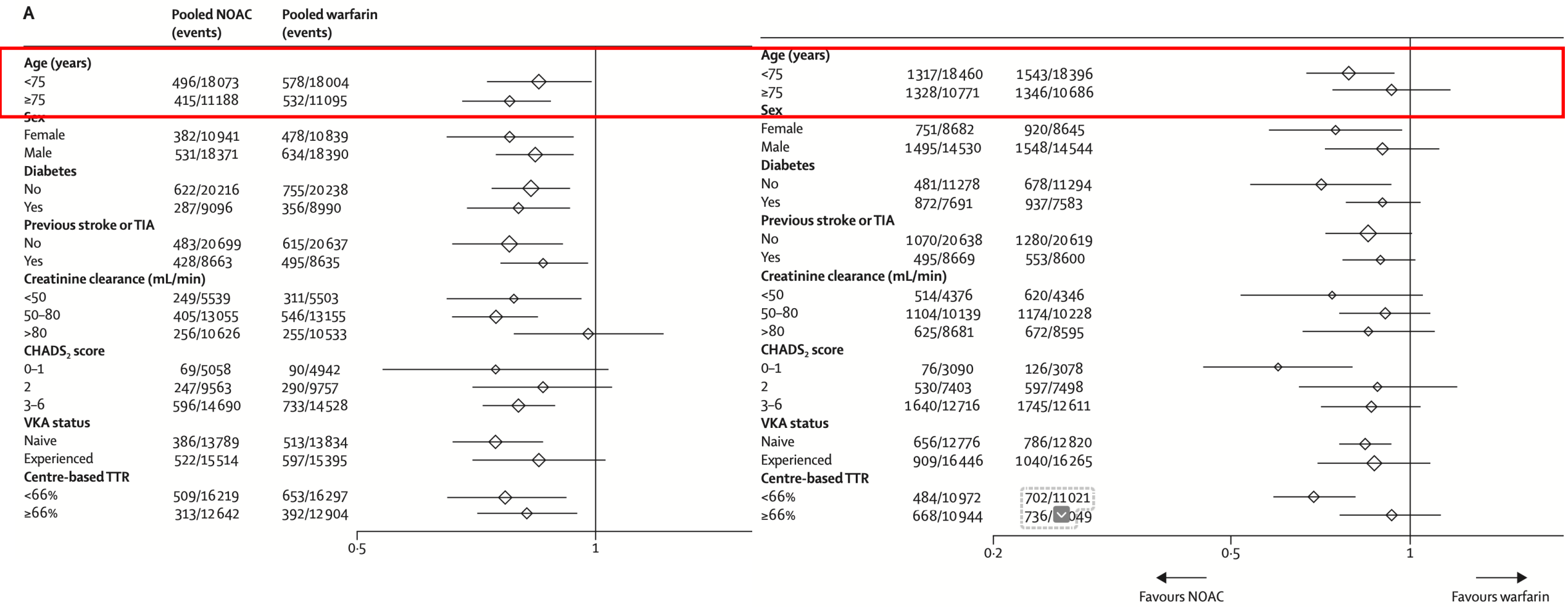
Net clinical benefit of OAC vs no OAC according to different age strata



Journal of the American Heart Association 6.7 (2017): e005657

NOAC vs VKA in elderly AF(≥75 years)

Pooled analysis of RCTs

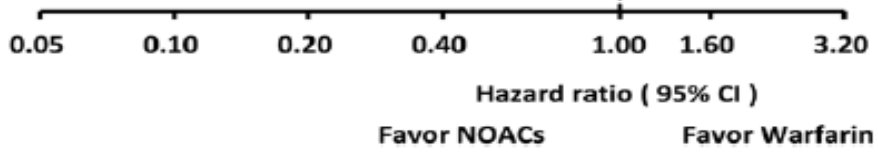


The Lancet 383.9921 (2014): 955-962.

Real World data : NOAC vs Warfarin in elderly AF(≥90 years)

Era with NOACs (Year 2012 - 2015)

		Hazard ratio (95% CI)	*P* value
Ischemic stroke			
Warfarin		Reference	-
NOACs	Unadjusted model	0.96 (0.51 - 1.82)	0.900
	Adjusted model[+]	1.04 (0.45 - 1.97)	0.905
	Competing risk[#]	1.16 (0.61 - 2.22)	0.654
ICH			
Warfarin		Reference	-
NOACs	Unadjusted model	0.27 (0.08 - 0.93)	0.038
	Adjusted model[+]	0.29 (0.09 - 0.98)	0.046
	Competing risk[#]	0.32 (0.10 - 0.97)	0.044
Major bleeding			
Warfarin		Reference	-
NOACs	Unadjusted model	0.86 (0.57 - 1.29)	0.455
	Adjusted model[+]	0.88 (0.58 - 1.32)	0.536
	Competing risk[#]	0.95 (0.63 - 1.44)	0.866



Circulation 138.1 (2018): 37-47.

NOAC vs. VKA in elderly patients (≥75 years)

Meta-analysis of 32 studies (5 RCTs)

Outcomes	No.s	I^2 (%)	HR/RR (95%CI)	*P* for interaction (OSs vs. RCTs)	RHR (95%CI)
Stroke/SE				0.54	1.06 (0.82-1.37)
observational studies	19	67.7	0.87 (0.81-0.94)		
RCTs	5	51.7	0.82 (0.67-0.96)		
ICH				1.00	1.00 (0.57-1.77)
observational studies	13	91.6	0.47 (0.37-0.57)		
RCTs	4	87.3	0.47 (0.31-0.63)		
Major bleeding				0.88	0.98 (0.66-1.44)
observational studies	17	69.1	0.87 (0.77-0.98)		
RCTs	5	42.0	0.89 (0.66-1.12)		
GIB				0.60	0.90 (0.54-1.52)
observational studies	14	89.4	1.21 (0.98-1.43)		
RCTs	4	86.1	1.34 (0.91-1.77)		
All-cause mortality				0.23	1.07 (0.91-1.27)
observational studies	10	89.2	1.01 (0.92-1.11)		
RCTs	4	0.0	0.94 (0.87-1.00)		
MI					
observational studies	7	0.0	0.89 (0.79-0.99)		

Frontiers in cardiovascular medicine (2020)

Rivaroxaban in Elderly patients

ORIGINAL RESEARCH

Bleeding risk with rivaroxaban compared with vitamin K antagonists in patients aged 80 years or older with atrial fibrillation

In the rivaroxaban cohort, 65% of patients were prescribed rivaroxaban as initial anticoagulant therapy, while 35% switched from VKA. Thirty-six per cent of patients were prescribed 20 mg of rivaroxaban once daily, 63% 15 mg and 1% 10 mg. In patients with a baseline eGFR 30–50 mL/min, 84.5% were prescribed rivaroxaban 15 mg once daily. In patients with a baseline eGFR ≥50 mL/min, rivaroxaban was prescribed 20 mg once daily in 54.6% and 15 mg once daily in 45.4% of patients.

Comparison of rate of events between rivaroxaban and VKA in the propensity score-matched sample
*p<0.05, **p<0.001

Heart. 2021; 107(17): 1376–1382

Rivaroxaban in Elderly patients

ORIGINAL RESEARCH

Bleeding risk with rivaroxaban compared with vitamin K antagonists in patients aged 80 years or older with atrial fibrillation

Table 2 Events during the follow-up period among rivaroxaban and VKA groups

	Rivaroxaban		VKA		
Event	**n (%)**	**/100 person-years**	**n (%)**	**/100 person-years**	**HR (95% CI)**
Major bleedings	63 (6.3)	7.4	102 (11.2)	14.6	0.49 (0.36 to 0.67)
Fatal bleedings	9 (0.9)	1.0	21 (3.3)	3.0	0.34 (0.16 to 0.76)
Intracerebral haemorrhages	11 (1.1)	1.3	28 (3.1)	4.0	0.65 (0.45 to 0.93)
Gastrointestinal haemorrhages	26 (3.0)	3.0	34 (3.7)	4.9	0.82 (0.53 to 1.28)
Ischaemic strokes	14 (1.4)	1.6	19 (2.1)	2.7	0.57 (0.29 to 1.14)
All-cause mortality	178 (17.9)	20.3	241 (26.5)	34.5	0.59 (0.49 to 0.72)

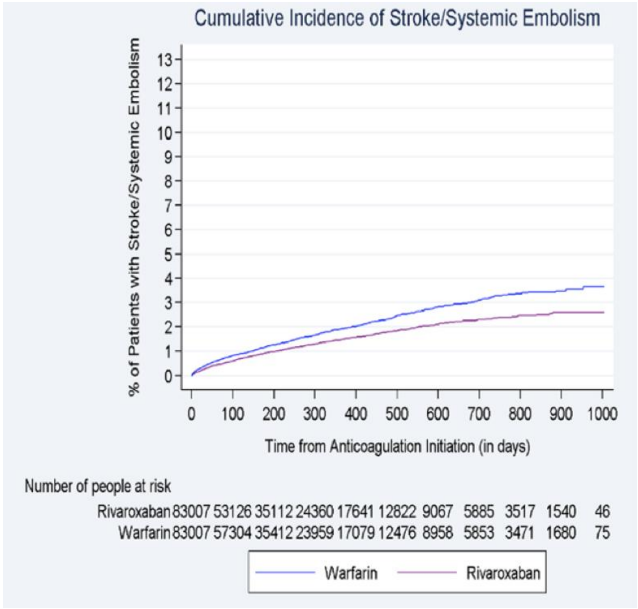
n (%), count (percentage); HR (95% CI), hazard ratio (95% confidence interval)

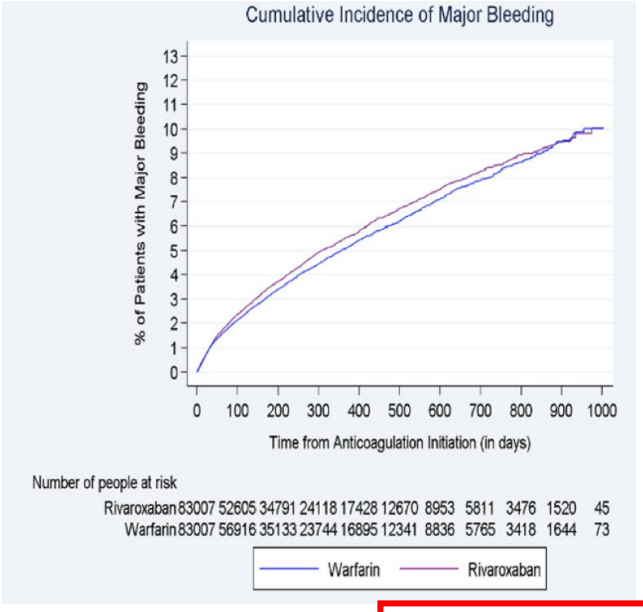
Heart. 2021; 107(17): 1376–1382

Effectiveness and Safety of Oral Anticoagulants Among Nonvalvular Atrial Fibrillation Patients

The ARISTOPHANES Study

Gregory Y.H. Lip, MD; Allison Keshishian, MPH; Xiaoyan Li, PhD; Melissa Hamilton, MPH; Cristina Masseria, PhD; Kiran Gupta, PhD; Xuemei Luo, PhD; Jack Mardekian, PhD; Keith Friend, MD; Anagha Nadkarni, PhD; Xianying Pan, MS; Onur Baser, PhD; Steven Deitelzweig, MD





Stroke/SE	Apixaban vs. Warfarin		Dabigatran vs. Warfarin		Rivaroxaban vs. Warfarin	
Subgroup	No. of events (incidence rate - per 100 person-years)	HR (95% CI)	No. of events (incidence rate - per 100 person-years)	HR (95% CI)	No. of events (incidence rate - per 100 person-years)	HR (95% CI)
Age, years						
<65	50 (1.07) vs. 73 (1.35)	0.76 (0.53-1.08)*	30 (0.92) vs. 41 (1.22)	0.76 (0.47-1.22)	79 (1.18) vs. 98 (1.47)	0.81 (0.60-1.09)
65-74	121 (1.21) vs. 187 (1.47)	0.76 (0.61-0.96)*	62 (1.02) vs. 93 (1.44)	0.71 (0.51-0.98)	207 (1.05) vs. 283 (1.43)	0.74 (0.62-0.88)
75-79	69 (1.10) vs. 157 (2.02)	0.51 (0.38-0.68)*	62 (1.79) vs. 67 (1.84)	0.98 (0.69-1.38)	158 (1.33) vs. 216 (1.80)	0.74 (0.61-0.91)
≥80	198 (1.77) vs. 403 (2.98)	0.55 (0.47-0.65)*	105 (2.22) vs. 137 (2.89)	0.77 (0.60-0.99)	405 (2.20) vs. 548 (2.91)	0.76 (0.66-0.86)

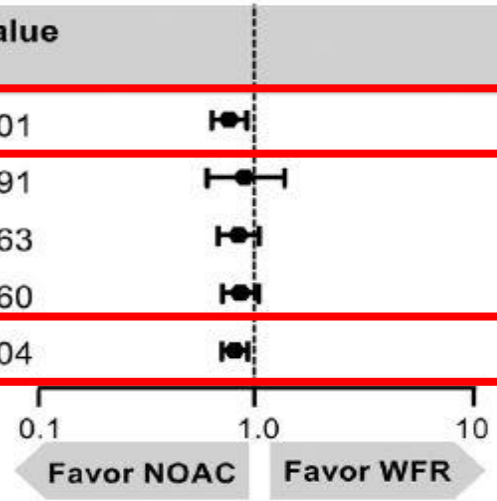
Stroke. 2018 Dec;49(12):2933-2944.

Non-vitamin K antagonist oral anticoagulants in very elderly east Asians with atrial fibrillation: A nationwide population-based study

Soonil Kwon, MD,[a,1] So-Ryoung Lee, MD,[a,1] Eue-Keun Choi, MD, PhD,[a,b] Won-Seok Choe, MD,[c] Euijae Lee, MD,[c] Jin-Hyung Jung, MS,[d] Kyung-Do Han, PhD,[e] Seil Oh, MD, PhD,[a,b] and Gregory Y. H. Lip, MD[b,f,g] *Seoul, Bucheon, Republic of Korea; Liverpool, United Kingdom; and Aalborg, Denmark*

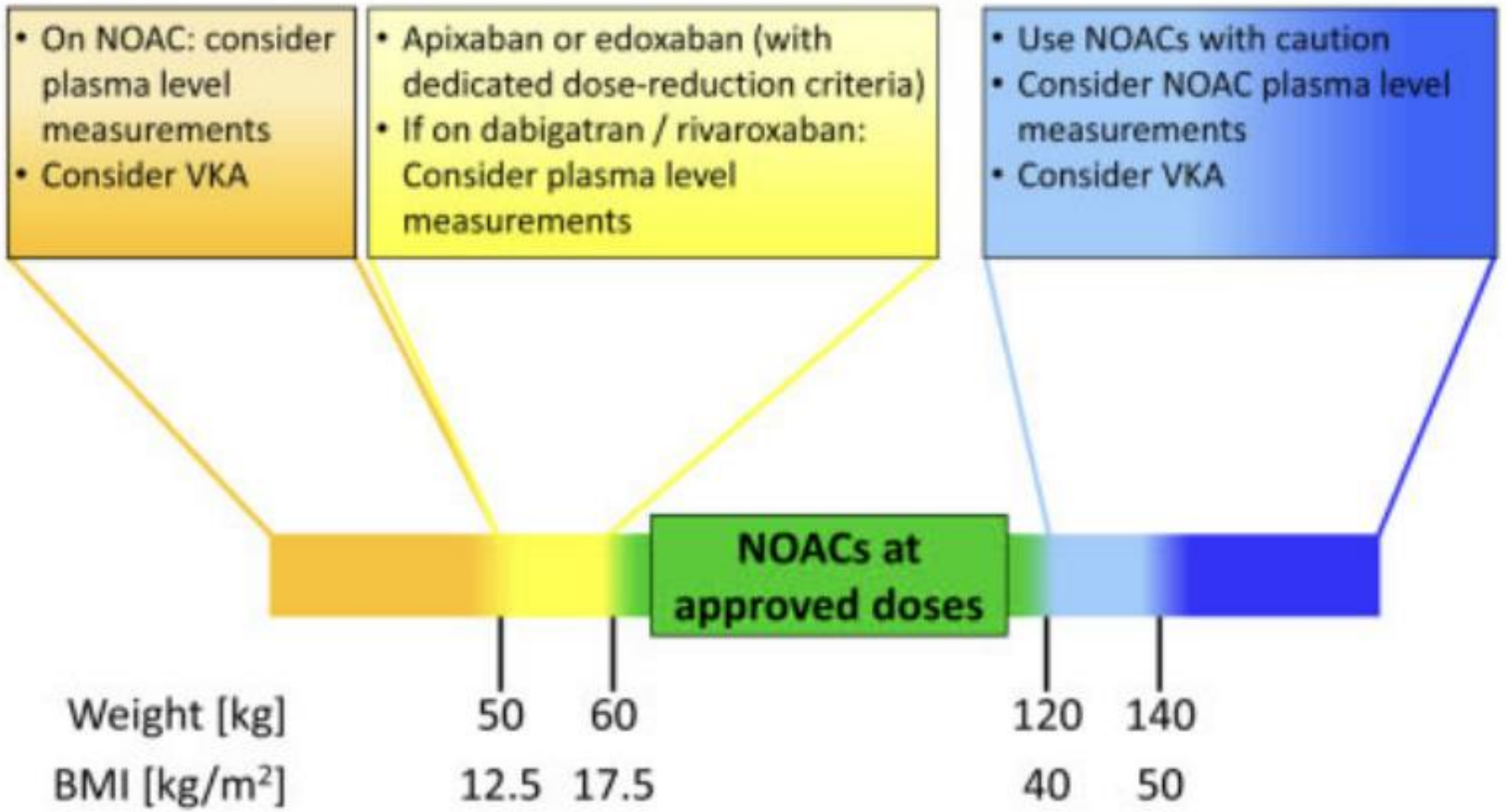
Patients aged ≥80 years (n=24,659)

	Weighted IR per 100 PY			
	Warfarin (n=4,086)	NOAC (n=20,573)	HR (95% CI)	*P* value
Ischemic stroke	5.3	4.0	0.74 (0.62-0.89)	0.001
Intracranial hemorrhage	1.0	0.9	0.87 (0.59-1.33)	0.491
GI bleeding	3.7	3.1	0.82 (0.66-1.02)	0.063
Major bleeding	4.7	4.0	0.83 (0.69-1.01)	0.060
Composite clinical outcome	9.7	7.8	0.78 (0.69-0.90)	0.004



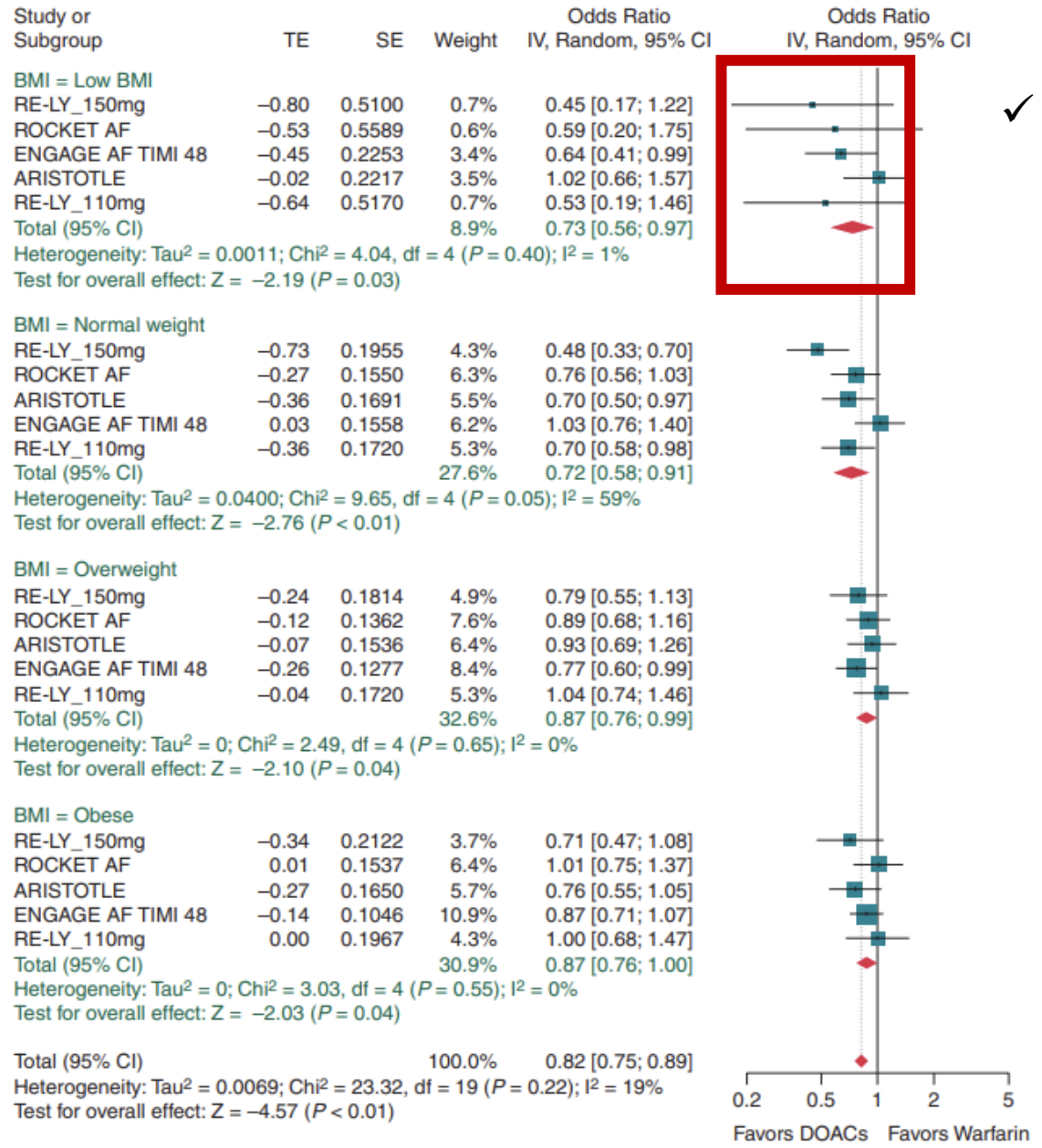
American Heart Journal 229 (2020): 81-91.

NOACs in Low & Overweight patient



J. Steffel et al. *Europace*. 2021;23(10):1612-1676

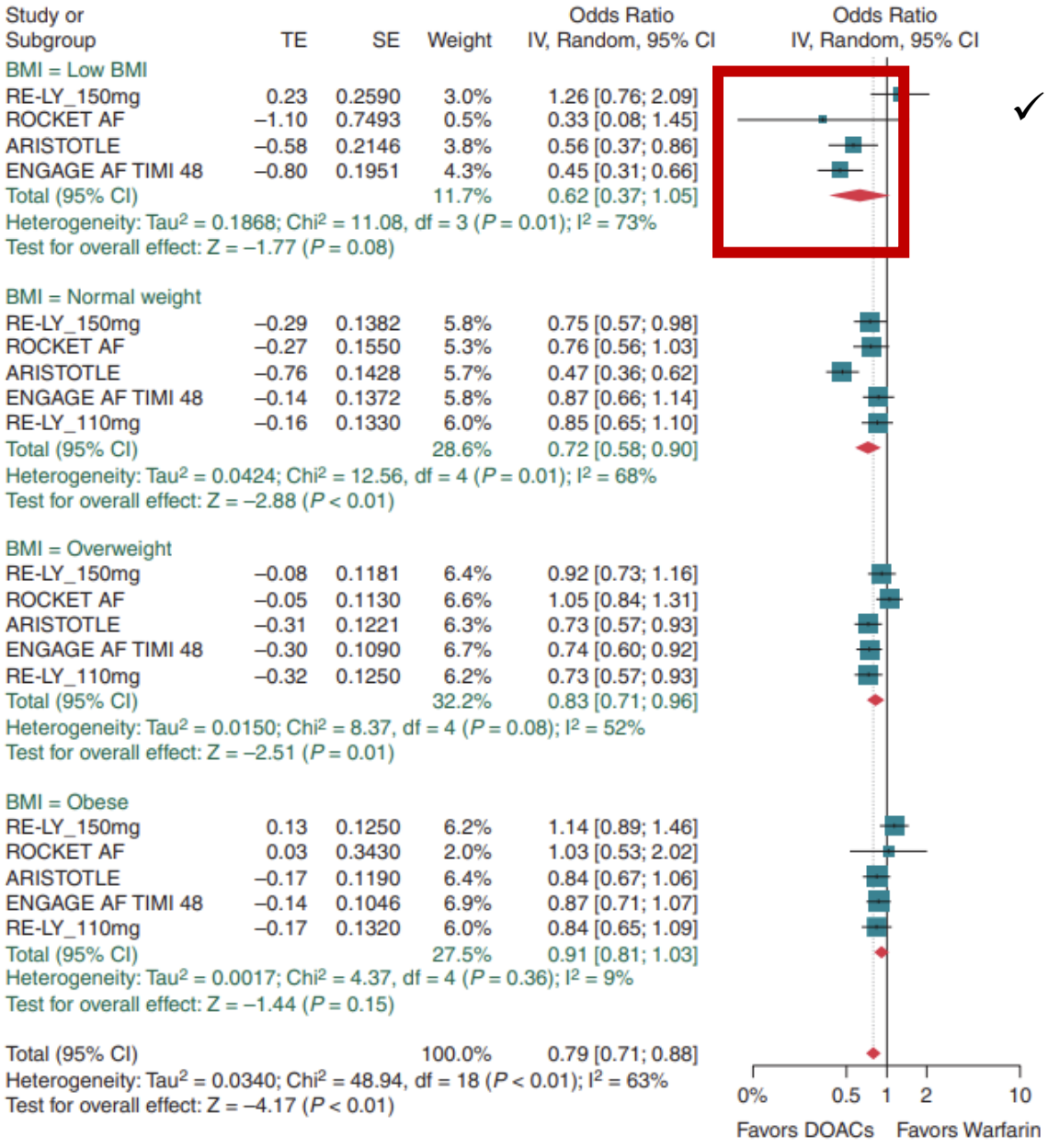
NOACs in Low Body Weight



- ✓ Stroke or systemic embolization with NOACs vs. warfarin in patients with atrial fibrillation according to body mass index

A.H. Malik et al. Europace 2020;22(3):361-367

NOACs in Low Body Weight

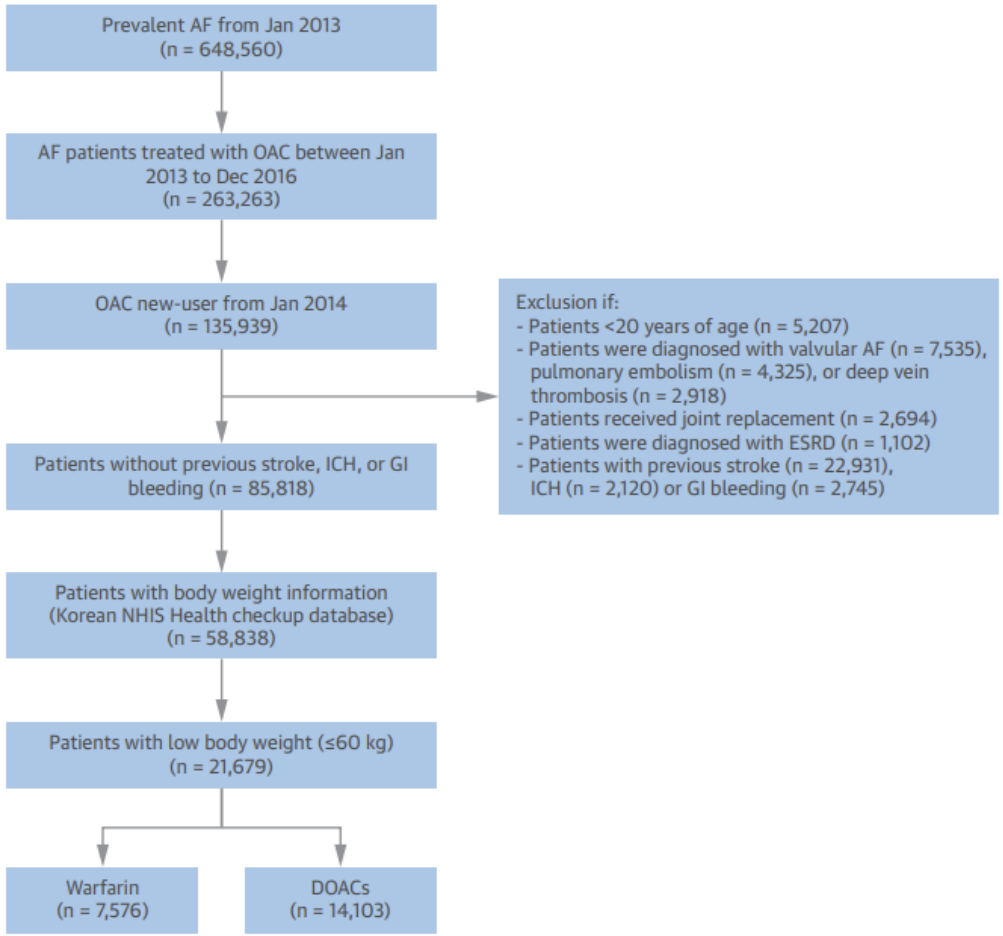


- ✓ Major bleeding with NOACs vs. warfarin in patients with atrial fibrillation according to BMI

A.H. Malik et al. Europace 2020;22(3):361-367

NOACs in Low Body Weight

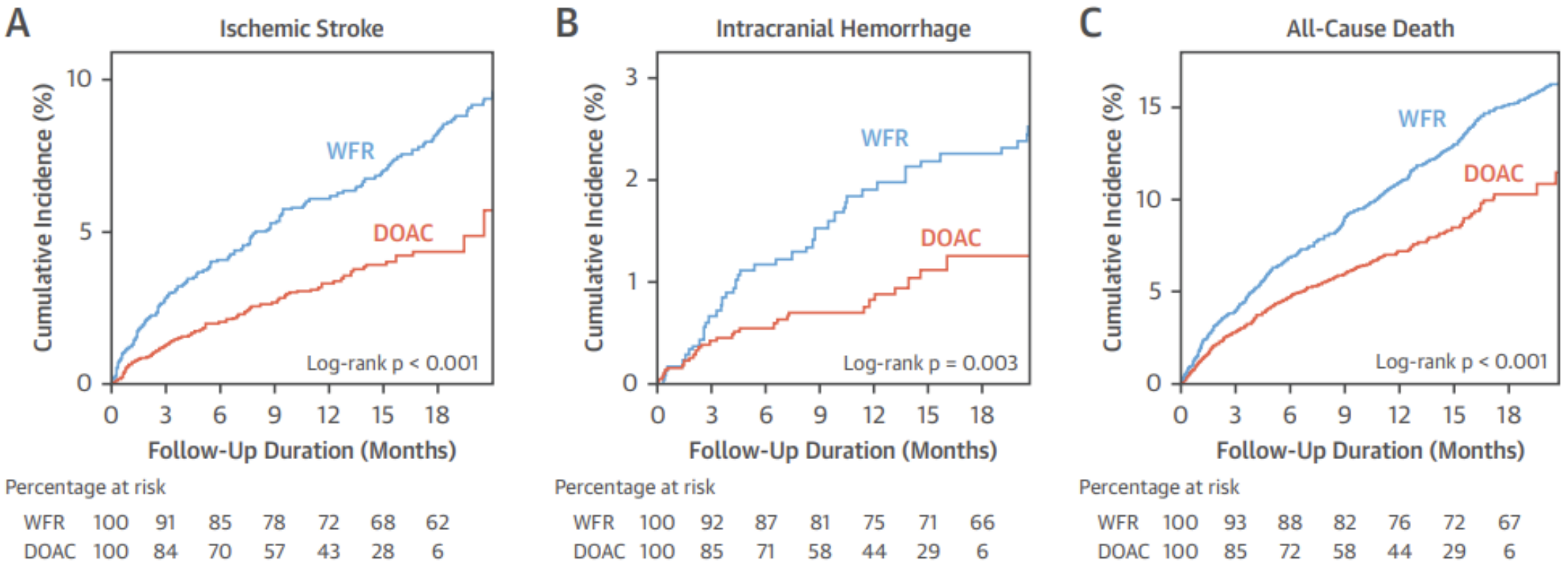
Direct Oral Anticoagulants in Patients With Nonvalvular Atrial Fibrillation and Low Body Weight



Lee, S.-R. et al. J Am Coll Cardiol. 2019;73(8):919–31

NOACs in Low Body Weight

FIGURE 3 Cumulative Incidence Curves of 6 Clinical Outcomes in Pooled DOAC Versus WFR in Patients With Extremely Low Body Weight (<50 kg)



Percentage at risk

WFR	100	91	85	78	72	68	62
DOAC	100	84	70	57	43	28	6

Percentage at risk

WFR	100	92	87	81	75	71	66
DOAC	100	85	71	58	44	29	6

Percentage at risk

WFR	100	93	88	82	76	72	67
DOAC	100	85	72	58	44	29	6

- ✓ In this real-world Asian population with nonvalvular AF and low body weight (≤60 kg), DOACs showed better effectiveness and safety than warfarin.
- ✓ This result remained consistent in patients with extremely low body weight (<50 kg)

Lee, S.-R. et al. J Am Coll Cardiol. 2019;73(8):919–31

NOACs in Low Body Weight

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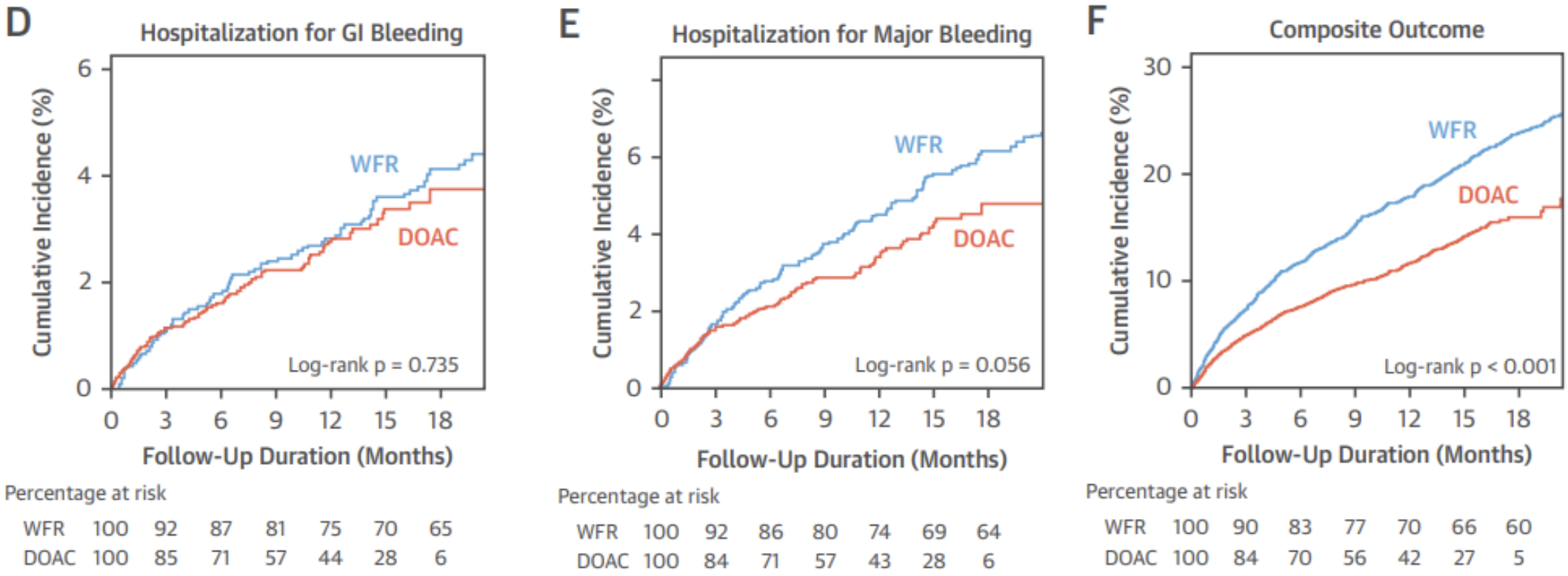

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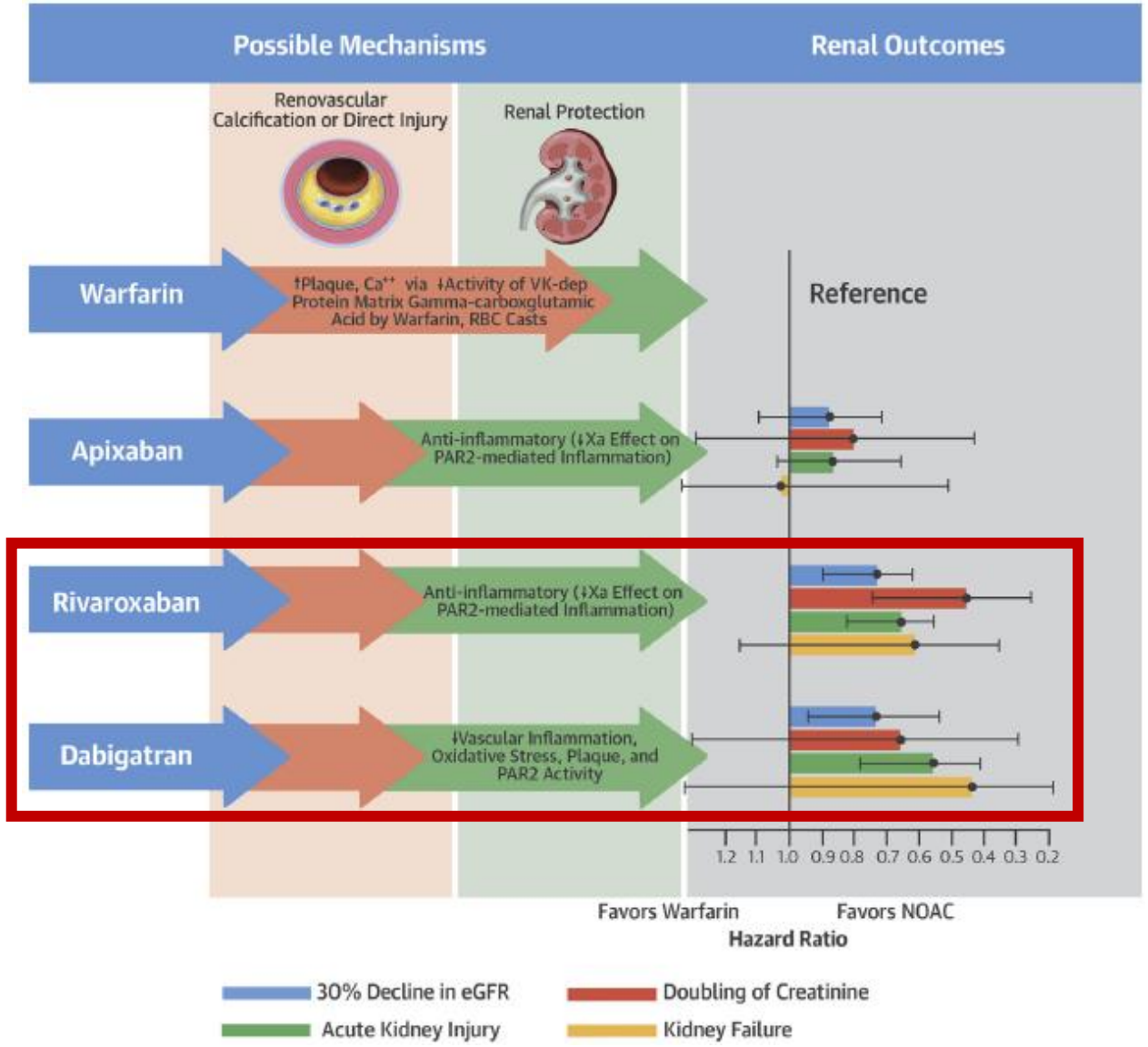
Lee, S.-R. et al. J Am Coll Cardiol. 2019;73(8):919–31

Dose-Reduction Criteria for NOACs

RE-LY[a] Dabigatran*	ROCKET-AF[b] Rivaroxaban	ARISTOTLE[c] Apixaban	ENGAGE-AF[d] Edoxaban*
• No dose reduction criteria but 2 doses evaluated – 150 mg bid – 110 mg bid	• 20 → 15 mg qd for – CrCl 30 to 49 mL/min	• 5 → 2.5 mg bid for ANY 2 of – Age ≥ 80 – Body weight ≤ 60 kg – Serum creatinine ≥ 1.5 mg/dL	• 60 → 30 mg qd or 30 → 15 mg qd for – CrCl 30 to 50 mL/min – Body weight ≤ 60 kg – Use of quinidine, verapamil, or dronedarone

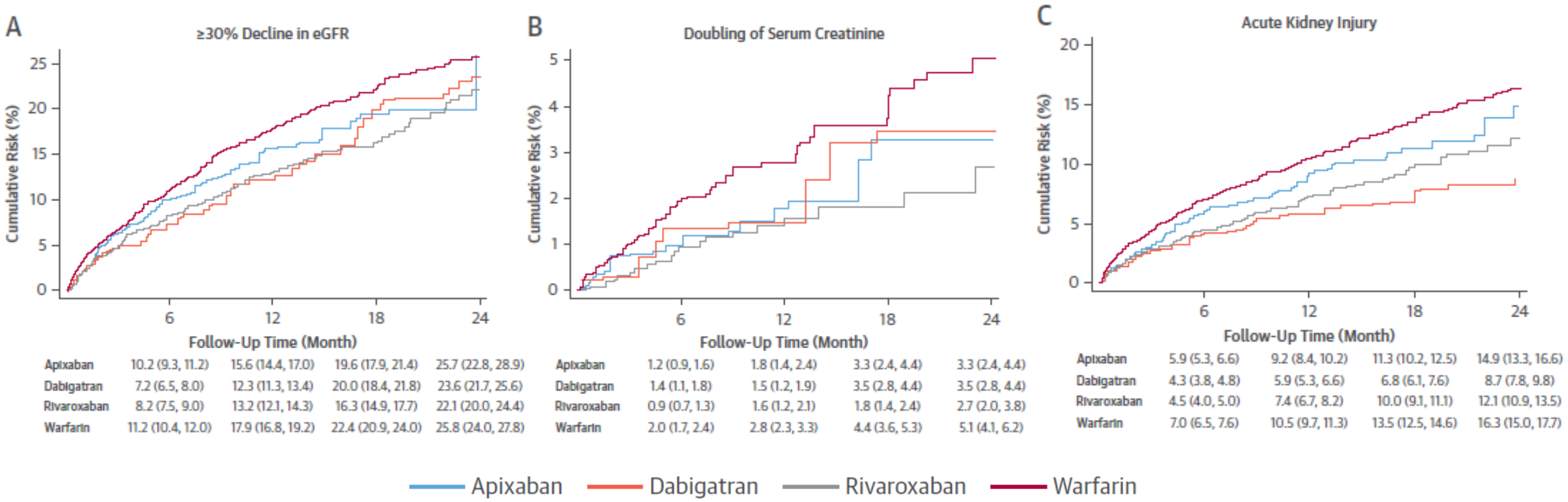
Connolly SJ et al. *N Engl J Med*. 2009;361:1139-1151
Patel MR et al. *N Engl J Med*. 2011;365:883-891
Granger CB et al. *N Engl J Med*. 2011;365:981-992
Giugliano RP et al. *N Engl J Med*. 2013;369:2093-2104

Renal Outcome of NOACs vs VKA



Yao, X. et al. *J Am Coll Cardiol* . 2017;70:2621–2632

Renal Outcome of NOACs vs VKA



Yao, X. et al. *J Am Coll Cardiol* . 2017;70:2621–2632

Optimal Rivaroxaban Dose in Asian Patients With Atrial Fibrillation and Normal or Mildly Impaired Renal Function

So-Ryoung Lee, MD; Eue-Keun Choi, MD, PhD; Kyung-Do Han, PhD; Jin-Hyung Jung, BSc; Seil Oh, MD, PhD; Gregory Y.H. Lip, MD

Background and Purpose—Although rivaroxaban 15 mg (R15) was only given to patients with creatinine clearance (CrCl) ≤50 mL/min in the pivotal clinical trial, this dose has been commonly prescribed in Asian patients with nonvalvular atrial fibrillation regardless of renal function. There is a paucity of information on the clinical outcomes of R15 compared with rivaroxaban 20 mg (R20) in patients with CrCl ≥50 mL/min. This study aimed to examine the effectiveness and safety of 2 doses of rivaroxaban in Asian patients with atrial fibrillation and CrCl ≥50 mL/min.

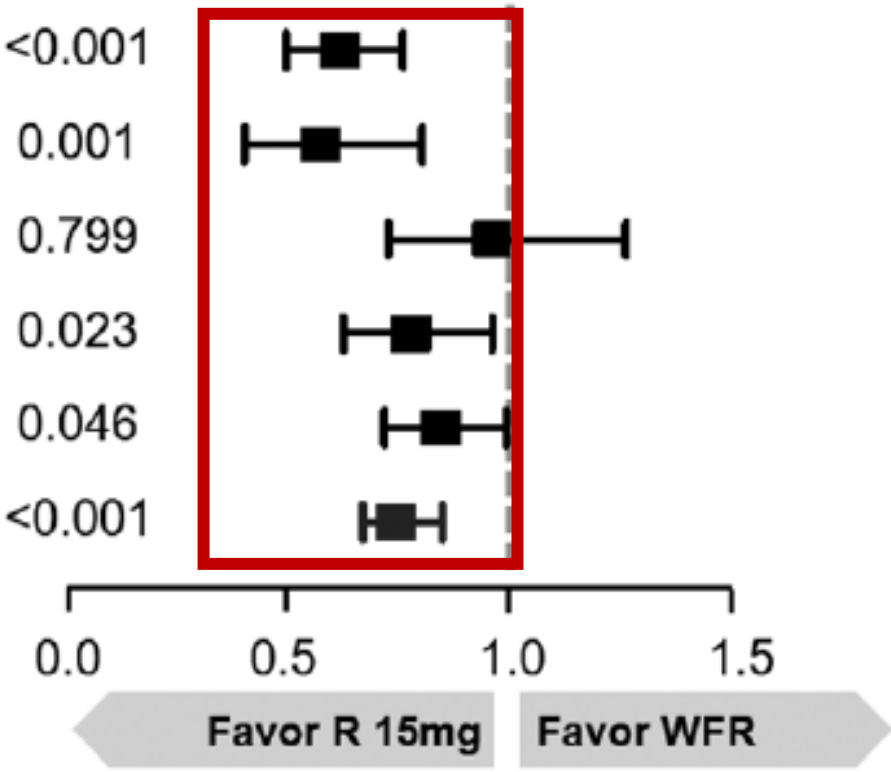
Methods—Using the Korean National Health Insurance Service database, patients with atrial fibrillation and normal or mildly impaired renal function (CrCl ≥50 mL/min) and naive to rivaroxaban or warfarin were included from January 2014 to December 2016. Three separate 1:1 propensity score–matched cohorts were conducted: R20 versus warfarin (n=15 584), R15 versus warfarin (n=11 554), and R20 versus R15 (n=10 392). Hazard ratios for ischemic stroke, intracranial hemorrhage, gastrointestinal bleeding, major bleeding, all-cause death, and composite clinical outcome were analyzed.

Lee et al. *Stroke*. 2019;50:1140-1148

Rivaroxaban 15mg in CrCl≥50mL/min

Rivaroxaban 15mg vs Warfarin

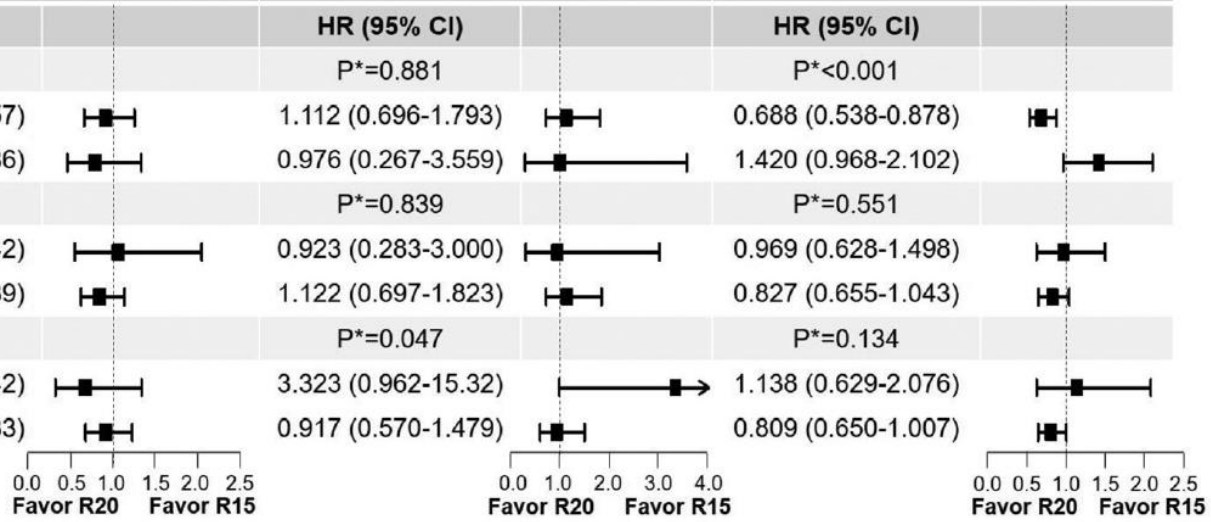
Off-label R15 vs Warfarin	HR* (95% CI)	P-value
Ischemic stroke	0.623 (0.503-0.766)	<0.001
Intracranial hemorrhage	0.579 (0.408-0.809)	0.001
Hospitalization for GI bleeding	0.965 (0.733-1.265)	0.799
Hospitalization for major bleeding	0.782 (0.631-0.966)	0.023
All-cause death	0.850 (0.723-0.997)	0.046
Composite clinical outcome	0.759 (0.675-0.853)	<0.001



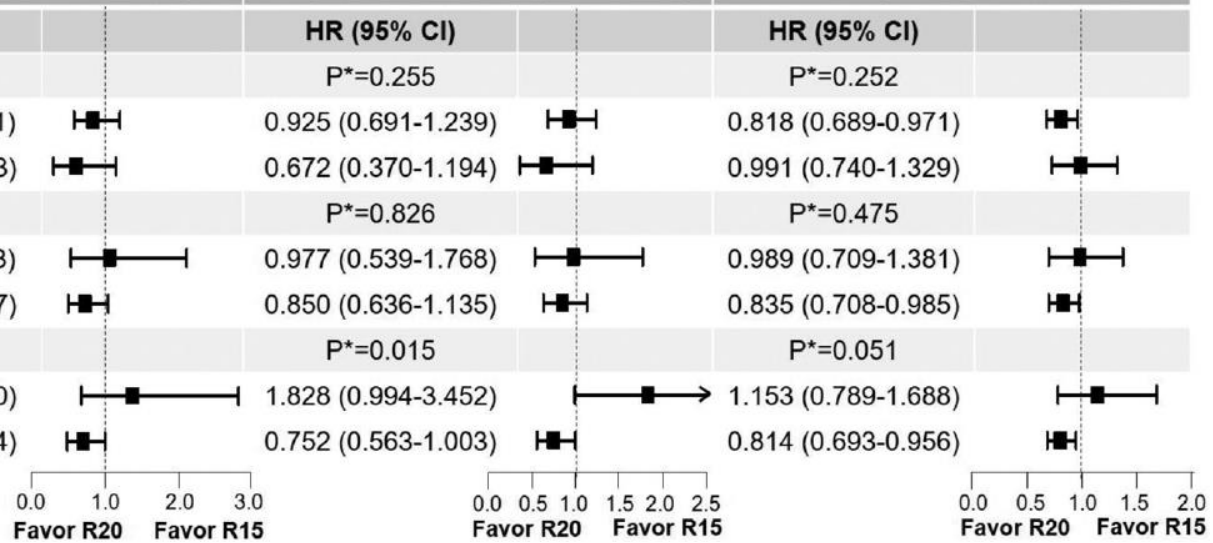
Lee et al. *Stroke*. 2019;50:1140-1148

Rivaroxaban 15mg vs 20mg

R20 vs R15 (ref)	Ischemic stroke	Intracranial hemorrhage	All-cause death
	HR (95% CI)	HR (95% CI)	HR (95% CI)
Age	P*=0.678	P*=0.881	P*<0.001
<80 years	0.918 (0.671-1.257)	1.112 (0.696-1.793)	0.688 (0.538-0.878)
≥80 years	0.799 (0.474-1.336)	0.976 (0.267-3.559)	1.420 (0.968-2.102)
Body weight	P*=0.712	P*=0.839	P*=0.551
<50 kg	1.070 (0.560-2.042)	0.923 (0.283-3.000)	0.969 (0.628-1.498)
≥50 kg	0.849 (0.632-1.139)	1.122 (0.697-1.823)	0.827 (0.655-1.043)
Renal function (CrCl)	P*=0.442	P*=0.047	P*=0.134
50-60 mL/min	0.684 (0.337-1.342)	3.323 (0.962-15.32)	1.138 (0.629-2.076)
>60 mL/min	0.920 (0.687-1.233)	0.917 (0.570-1.479)	0.809 (0.650-1.007)



R20 vs R15 (ref)	Hospitalization for GI bleeding	Hospitalization for major bleeding	Composite outcome
	HR (95% CI)	HR (95% CI)	HR (95% CI)
Age	P*=0.289	P*=0.255	P*=0.252
<80 years	0.838 (0.579-1.211)	0.925 (0.691-1.239)	0.818 (0.689-0.971)
≥80 years	0.603 (0.303-1.153)	0.672 (0.370-1.194)	0.991 (0.740-1.329)
Body weight	P*=0.520	P*=0.826	P*=0.475
<50 kg	1.065 (0.537-2.113)	0.977 (0.539-1.768)	0.989 (0.709-1.381)
≥50 kg	0.729 (0.506-1.047)	0.850 (0.636-1.135)	0.835 (0.708-0.985)
Renal function (CrCl)	P*=0.157	P*=0.015	P*=0.051
50-60 mL/min	1.381 (0.682-2.820)	1.828 (0.994-3.452)	1.153 (0.789-1.688)
>60 mL/min	0.701 (0.487-1.004)	0.752 (0.563-1.003)	0.814 (0.693-0.956)



Lee et al. *Stroke*. 2019;50:1140-1148

Rivaroxaban in Kidney Disease

Evidence for warfarin and NOACs in AF by CKD stage

CKD stage	Warfarin	DOACs
Mild to moderate Stages 2-3 (eGFR 30-90 mL/min/1.73 m^2)	Primarily observational data supporting use	High quality data support use, may be superior to warfarin
Severe Stage 4 (eGFR 15-29 mL/min/1.73 m^2)	Limited data supports use	Pharmacologic studies allow for use with dose reductions, lack patient data
End stage renal disease Stage 5 (eGFR <15 mL/min/1.73 m^2 or on hemodialysis)	Majority of studies suggest lack of benefit and possible harm	*Dabigatran* removed by dialysis *Rivaroxaban* has safe drug levels based on modeling, but lacks patient data *Apixaban* safe and effective based on modeling and retrospective data, prospective data needed

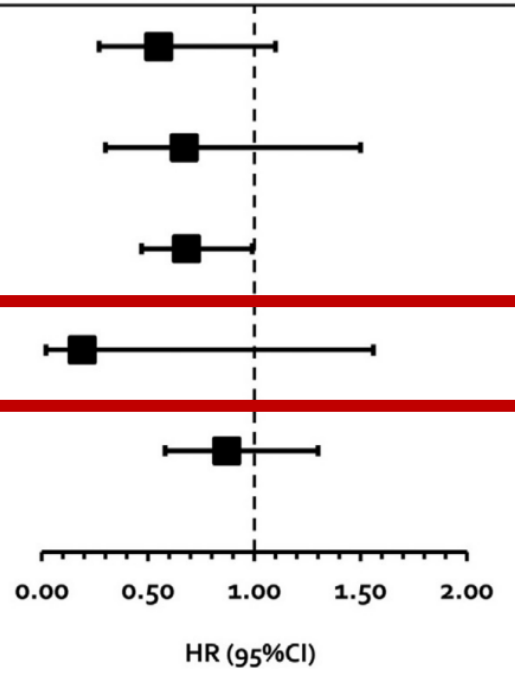
HS Bhatia et al. Clinical Cardiology. 2018;41:1395–1402

Rivaroxaban in Chronic Hemodialysis

Rivaroxaban Versus Warfarin in Patients With Nonvalvular Atrial Fibrillation and Severe Kidney Disease or Undergoing Hemodialysis

Craig I. Coleman, PharmD[a,b], Reinhold Kreutz, MD, Ph
Daniel Eriksson, MS[f], Anna-Katharina Meinecke, PhD[f]

	Event Rate (per 100 Person-Years)		
	Rivaroxaban N=1896	Warfarin (n=4848)	HR (95%CI)
Stroke or Systemic Embolism	1.10	2.16	0.55 (0.27-1.10)
Ischemic Stroke	0.85	1.44	0.67 (0.30-1.50)
Major Bleeding	3.73	6.16	0.68 (0.47- 0.99)
Intracranial	0.08	0.28	0.19 (0.02-1.56)
Gastrointestinal	3.39	4.52	0.87 (0.58-1.30)

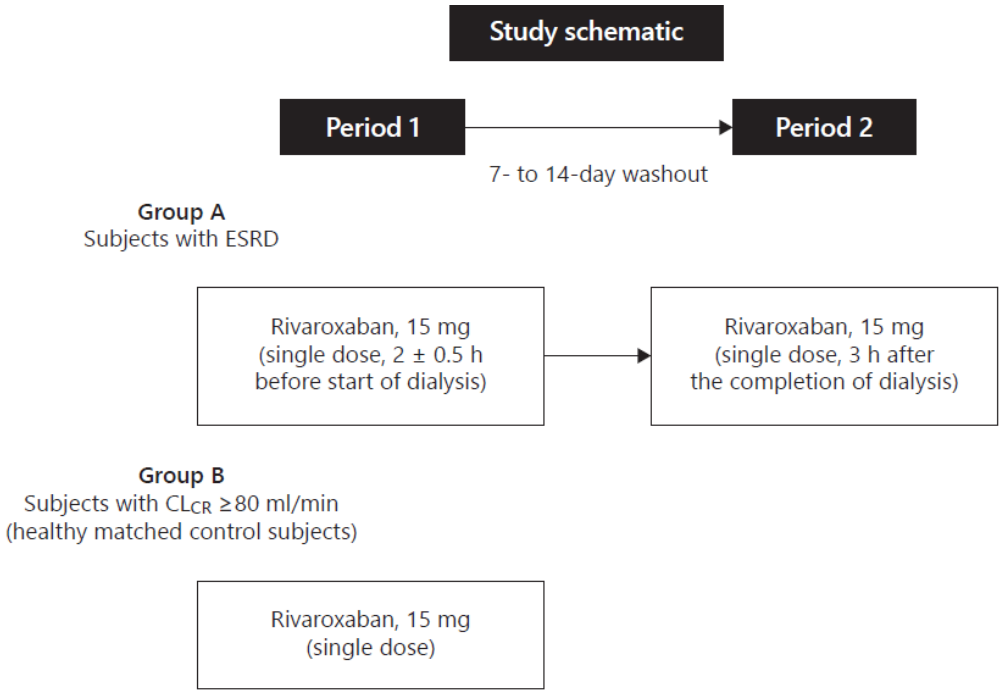


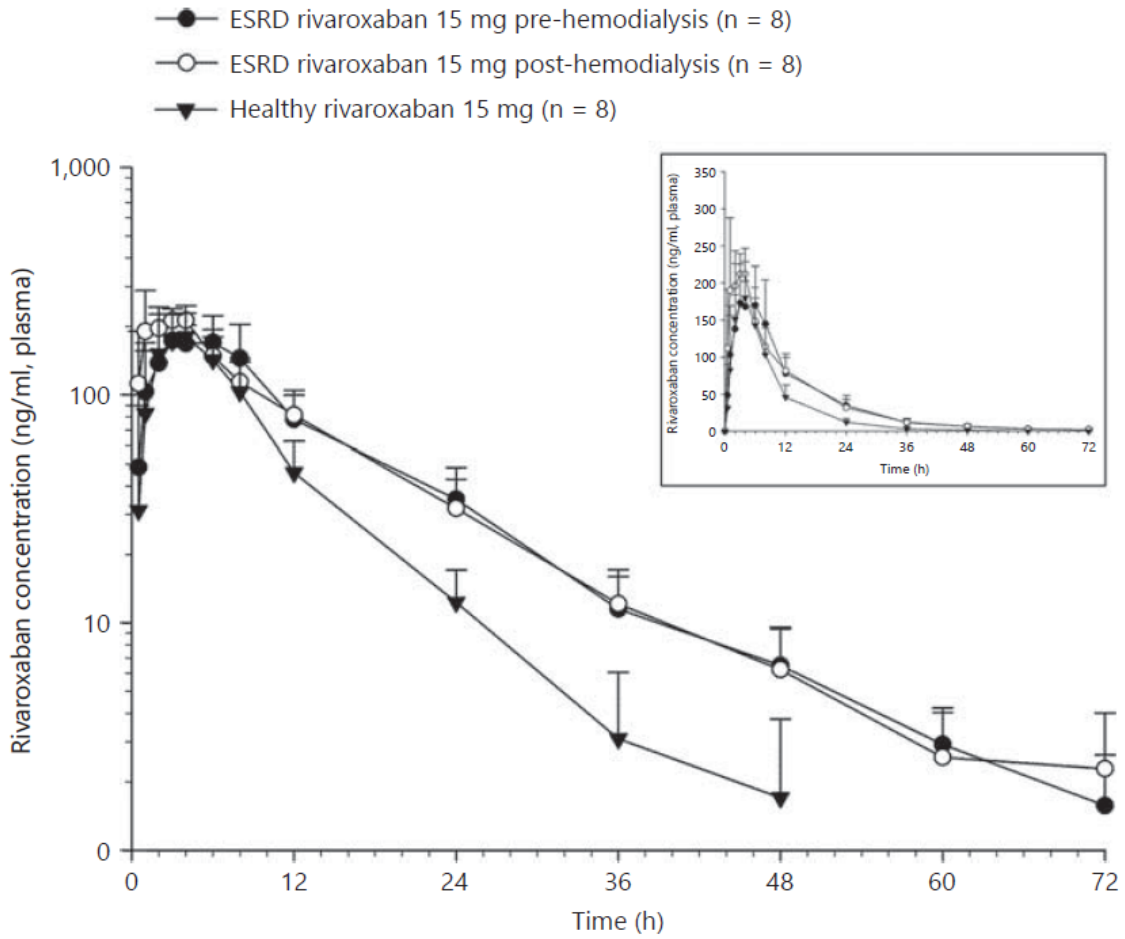
In total, we identified 1896 rivaroxaban (38.7% received a dose <20 mg/d) and 4848 warfarin users eligible for study inclusion. Baseline covariates were well balanced after adjustment (absolute standardized differences <0.1 for all

Coleman et al. *Am J Med.* 2019;132(9):1078-1083

Rivaroxaban 15mg in Chronic Hemodialysis

Pharmacokinetics, Pharmacodynamics, and Safety of Single-Dose Rivaroxaban in Chronic Hemodialysis





- ✓ Changes in PK and PD parameters in chronic dialysis patients were generally comparable to changes observed previously in patients with moderate-to-severe renal impairment who were not undergoing dialysis, and support use of a 15mg dose in this patient population

C Dias et al. Am J Nephrol 2016;43:229–236

Effectiveness and Safety of Rivaroxaban 15 or 20 mg Versus Vitamin K Antagonists in Nonvalvular Atrial Fibrillation

A Population-Based New Users High-Dimensional Propensity Score Matched Cohorts Study

Selected Population 719,537
First reimbursed dispensing of dabigatran, rivaroxaban or VKA between 1st January 2013 and 31 December 2014 Without DOAC or VKA dispensing in 3 previous years

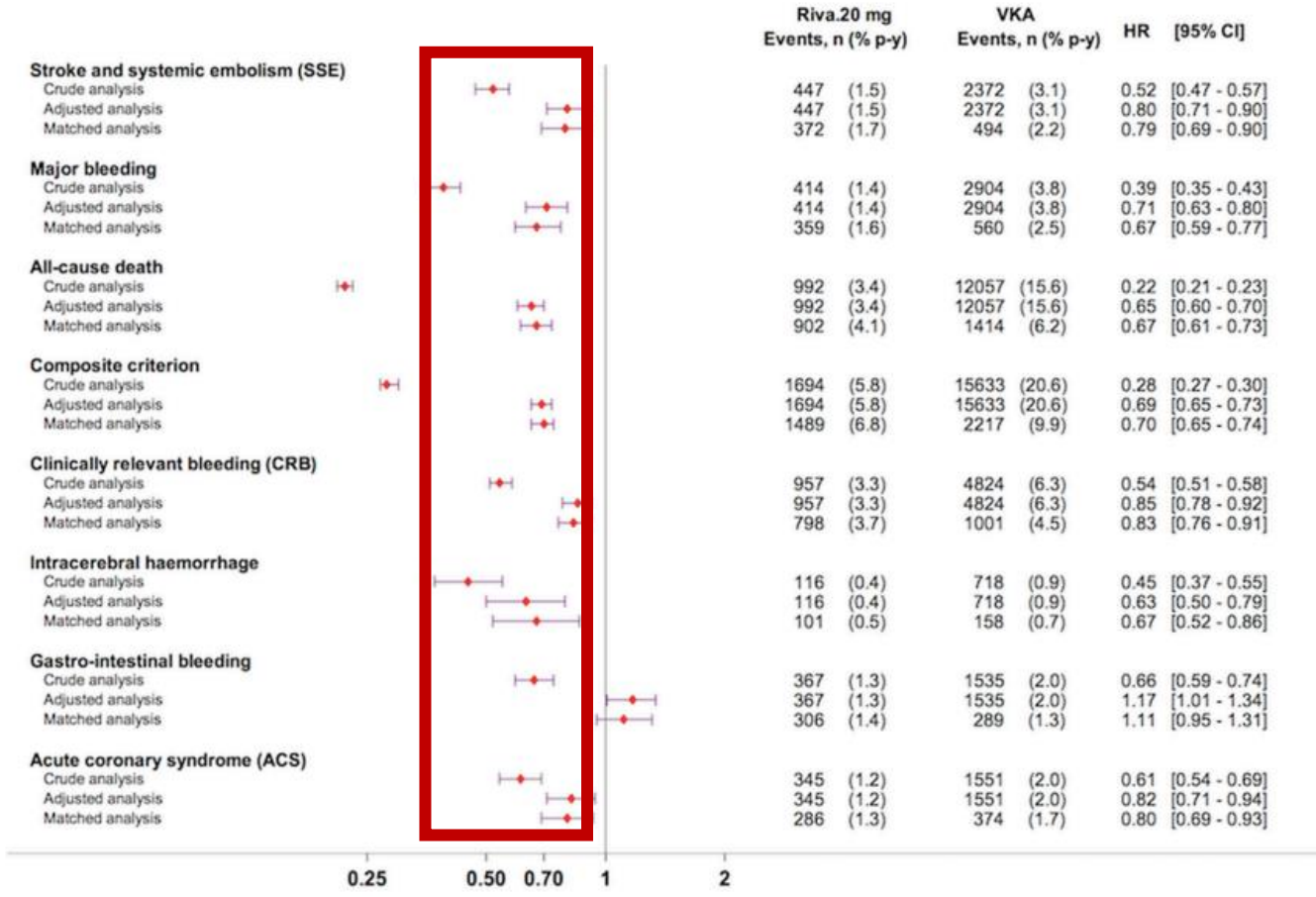
Excluded patients 541,135
- Less than 18 years at index date 1,840
- At least two treatment groups at index date 252
- Less than 3 years history in the database before index date 28,060
- Other probable indications 168,641
- Rheumatic valve disease history before index date 10,368
- Valve replacement before index date 14,013
- No or uncertain atrial fibrillation 276,352
- treated with other DOAC 41,609

Study Population 178,402
(Definite NVAF, no other probable indication)
- rivaroxaban 69,736
  - *rivaroxaban 20 mg* *42,531*
  - *rivaroxaban 15 mg* *24,585*
  - *rivaroxaban 10 mg* *2,620*
- Vitamin K antagonists 108,666

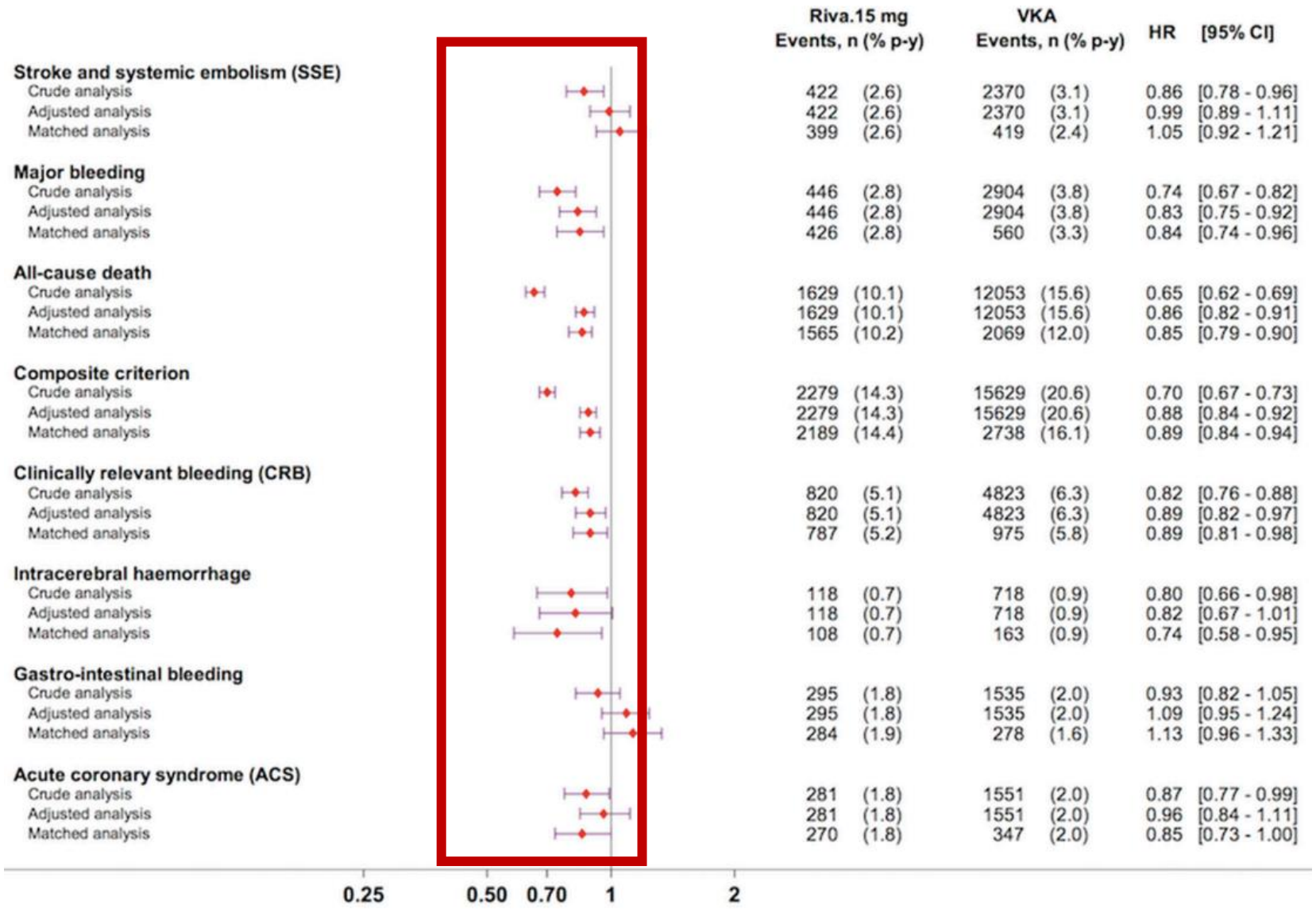
Matched patients

Rivaroxaban 20	VKA	Rivaroxaban 15	VKA
31,171	31,171	23,314	23,314

Rivaroxaban 20mg vs VKA



P Blin et al. Stroke. 2019;50:2469-2476



- ✓ Rivaroxaban 15mg appears to be at least as effective and safer than VKA for the prevention of thromboembolic events in NVAF

P Blin et al. Stroke. 2019;50:2469-2476

Conclusion

Fragile Patient with AF: focused on Rivaroxaban

[Elderly]

- ✓ Bleeding risk is lower with rivaroxaban than with VKA in stroke prevention in patients ≥80 years old with non-valvular AF

[High Fall Risk]

- ✓ Rivaroxaban reduced patients' risk of intracranial hemorrhage and were at least as effective in preventing stroke or systemic embolism as warfarin in NVAF patients at high-risk for falls

[Low Body Weight]

- ✓ Major bleeding with NOACs vs. warfarin in patients with atrial fibrillation according to BMI
- ✓ No specific outcome data was available for patients with <60 kg or <50 kg in patients the full AF dose of rivaroxaban

[Kidney Disease]

- ✓ Rivaroxaban is associated with lower risks of adverse renal outcomes than warfarin
- ✓ Rivaroxaban 20mg showed better results for the composite clinical outcome in CrCl≥50mL/min than rivaroxaban 15mg
- ✓ Rivaroxaban 20mg was associated with higher risk of major bleeding than Rivaroxaban 15mg in patients with CrCl 50–60 mL/min
- ✓ Rivaroxaban has safe drug levels based on modeling, but lacks patient data in CKD stage 5

리복사반 정

성분함량: 1정 중 Rivaroxaban 2.5mg / 10mg / 15mg / 20mg

제품성상: 2.5 mg: 노란색의 양면이 볼록한 원형의 필름코팅정

10 mg: 분홍색의 양면이 볼록한 원형의 필름코팅정

15 mg: 갈색의 양면이 볼록한 원형의 필름코팅정

20 mg: 어두운 빨간색의 양면이 볼록한 원형의 필름코팅정

약가: 2.5 mg: 640원

10 mg: 770원

15 mg: 950원

20 mg: 1,188원