Garfield
global anticoagulant registry in the field

Adverse one-year outcomes for patients newly treated with oral anticoagulants plus antiplatelet therapy after a diagnosis of atrial fibrillation

Results from the GARFIELD-AF prospective registry

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Disclosures for KAAF

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Declaration of interest

- Research contracts (Bayer/Janssen, AstraZeneca)
- Consulting/Royalties/Owner/ Stockholder of a healthcare company (Bayer/Jan
Verseon)
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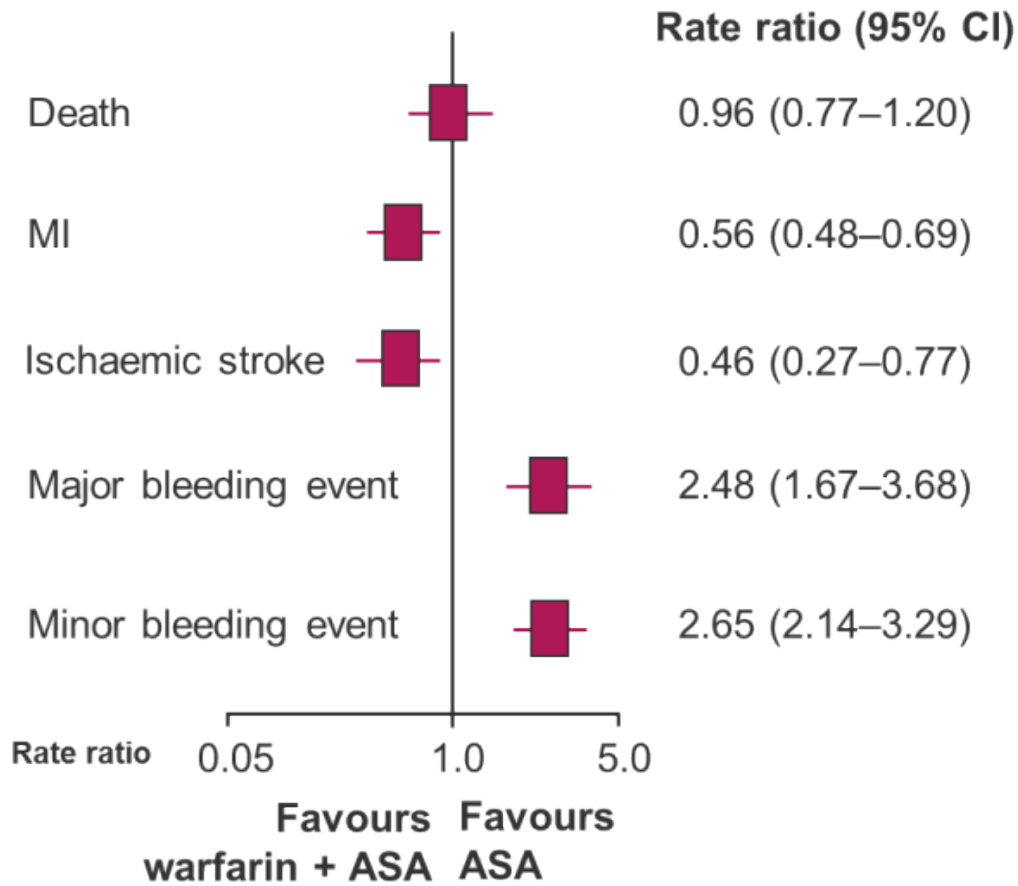
Warfarin + ASA reduced ischaemic events in patients with prior MI, but increased bleeding: trial data

10 trials; N=5938

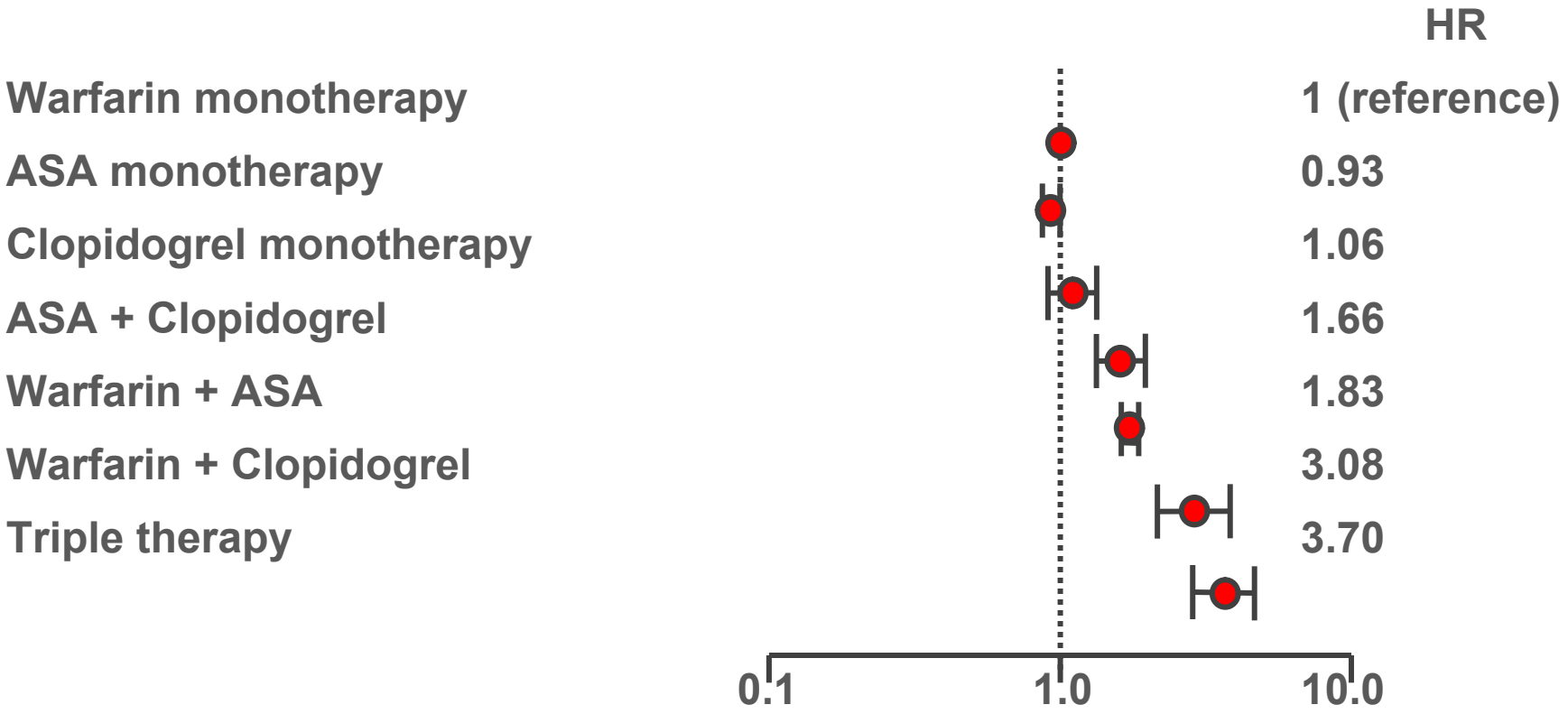
Meta-analysis: warfarin + ASA versus aspirin



ASA: Aspirin

Rothberg MB et al. *Ann Intern Med.* 2005;143;241–250

Warfarin plus anti-platelet therapy (aspirin or clopidogrel) increased the risk of bleeding compared with warfarin monotherapy: Danish registry



Danish Cohort Study: Atrial fibrillation (AF) patients discharged from hospital (1997-2006) with at least 1 prescription of warfarin, aspirin (ASA), clopidogrel or a combination; n=82 854, mean follow-up: 3.3 years

Hansen ML et al. *Arch Intern Med*. 2010;170:1433–1441

Does the addition of antiplatelet therapy, at the time of initiation of anticoagulation for newly diagnosed AF, improve or worsen outcomes?

AIM : To determine the baseline characteristics and comparative safety and effectiveness of OAC + AP vs OAC alone in patients with newly diagnosed AF and ≥ 1 risk factor for stroke

- **Endpoints: all-cause mortality, stroke, major bleeding and MI/ACS at 1 year**
- **Patients enrolled between Mar-2010 and Aug-2016 in the Global Anticoagulant Registry in the FIELD–Atrial Fibrillation (GARFIELD-AF) registry**
- **Adjustment for baseline covariates and propensity weighting**

OAC: Oral anticoagulants; AP: antiplatelet therapy; ACS: acute coronary syndrome; MI: myocardial infarction

Accounting for differences in baseline characteristics

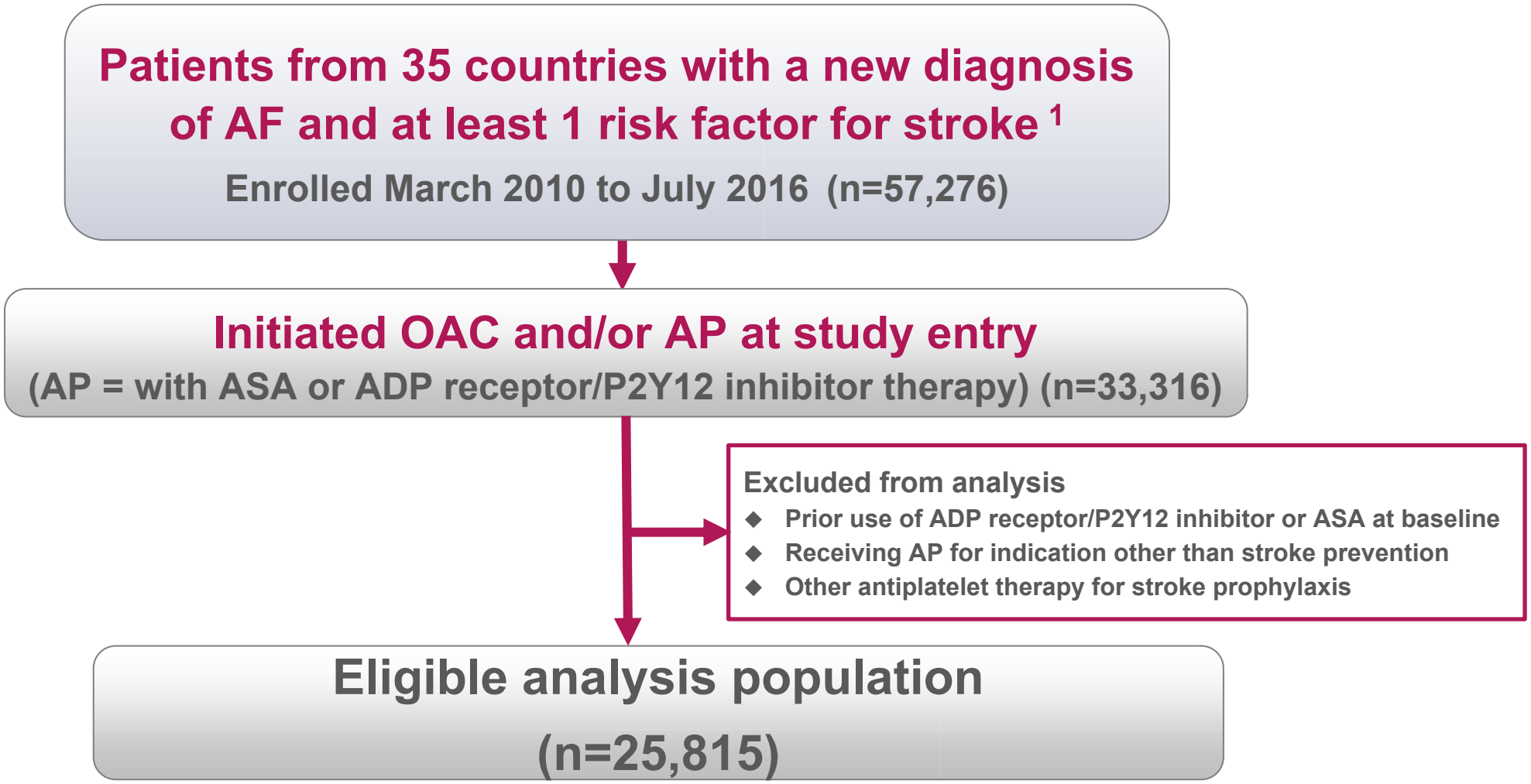
Multivariate Cox proportional hazards regression was used to estimate adjusted hazard ratios and 95% confidence intervals for:

- **all-cause mortality, stroke, major bleeding, MI/ACS**
- The Cox regression model was adjusted for **40 covariates** reflecting demographic factors, clinical assessments, medical history and concomitant medication at registry entry.

Propensity score-matched cohorts: Hazard ratios were also estimated for **1:1 propensity score-matched cohorts** based on a propensity score model including the same set of covariates for each comparison of interest.

- Patients were censored on occurrence of the outcome, loss-to-follow-up, death, discontinuation or change in therapy, or upon reaching 12 months of follow-up consistent with an as-treated analysis approach. (Intent-to-treat analyses yielded similar results.)

Patient population



[1] Kakkar AK et al. *Am Heart J* 2012; 163: 13-9.e1.

OAC: Oral anticoagulants; AP: antiplatelet therapy; ASA: Aspirin; ADP: Adenosine diphosphate

Baseline characteristics

	OAC + AP Therapy (N=3,133)	OAC only (N=22,682)
Age, median (IQR), years	71 (63,78)	71(64, 78)
Gender, female, %	36.9%	46.2%
Medical history, %		
Heart failure	25.4%	17.1%
Coronary artery disease	39.2%	10.2%
Acute coronary syndrome	22.0%	4.6%
Carotid occlusive disease	4.9%	2.1%
Venous thromboembolism	3.5%	3.3%
Stroke/TIA (history)	16.6%	9.1%
Bleeding (history)	2.9%	1.6%
Hypertension (history)	80.8%	76.1%
Hypercholesterolemia (history)	49.0%	36.4%
Diabetes, Type 1 or Type 2	30.1%	19.8%
Moderate-to-severe renal disease	13.5%	9.8%
CHA_2DS_2-VASc score, mean (SD)	3.36 (1.43)	2.98 (1.36)

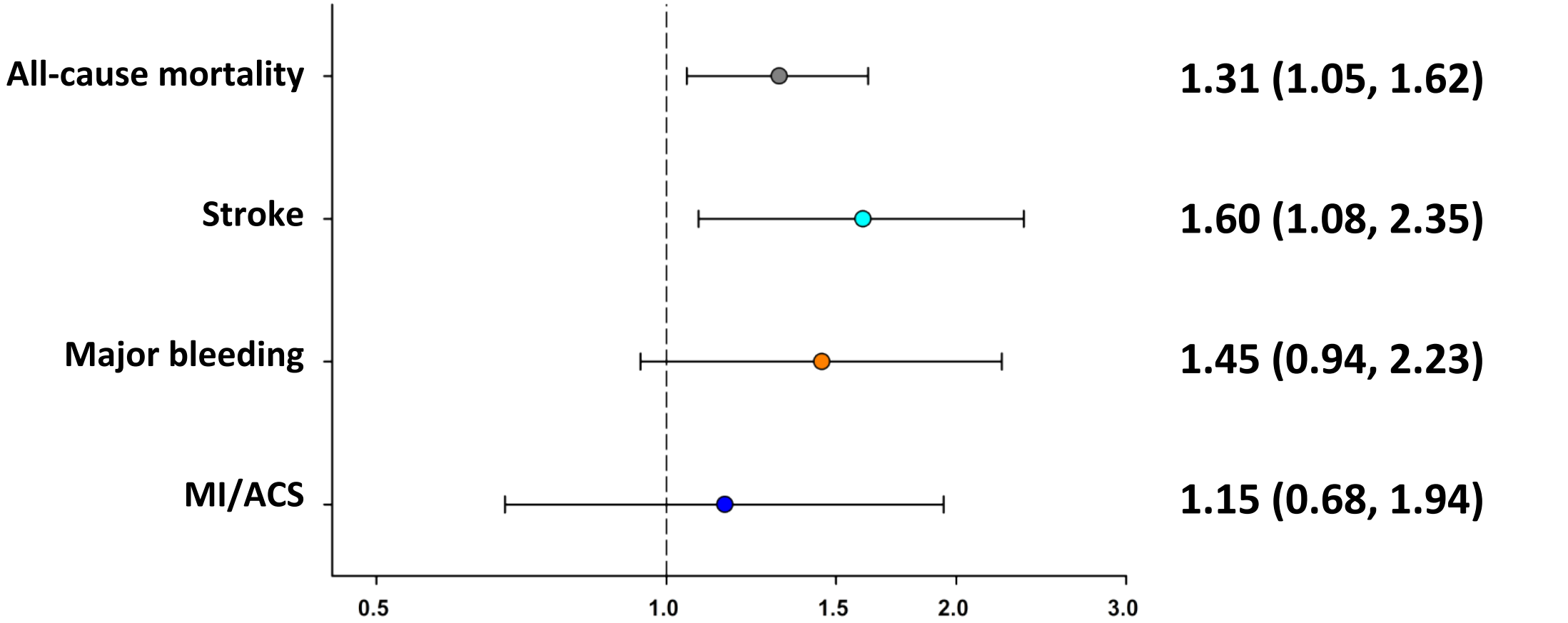
OAC+AP compared to OAC alone: event rates without adjustment for baseline characteristics

Events (per 100 per years)	OAC + AP (N = 3,133)	OAC only (N = 22,682)
All-cause mortality	5.4	3.3
Stroke	1.6	0.9
Major bleeding	1.3	0.8
MI/ACS	1.0	0.4

OAC: Oral anticoagulants; AP: antiplatelet therapy; ACS: acute coronary syndrome; MI: myocardial infarction

OAC+AP compared to OAC alone: risks of all-cause mortality, stroke and major bleeding after multivariate adjustment

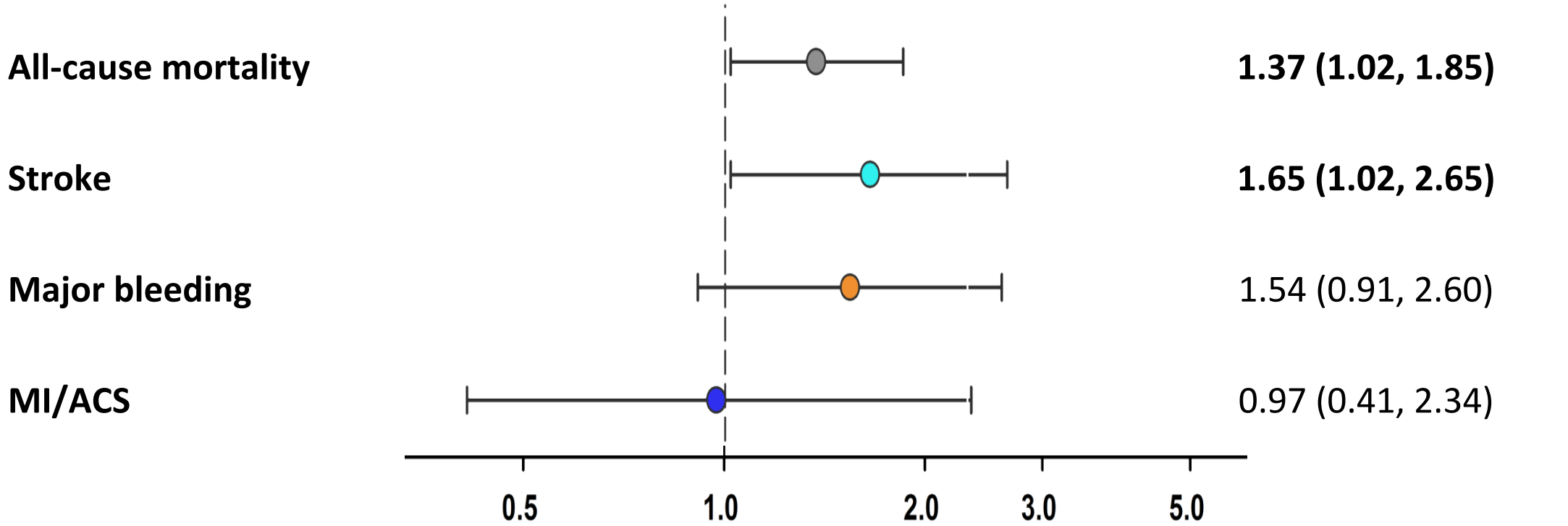
Adjusted multivariate Cox regression model



ACS: acute coronary syndrome; MI: myocardial infarction

After excluding those with prior CAD/PAD, there remained trends for excess risks of mortality, stroke and bleeding with OAC+AP

Adjusted multivariate Cox regression



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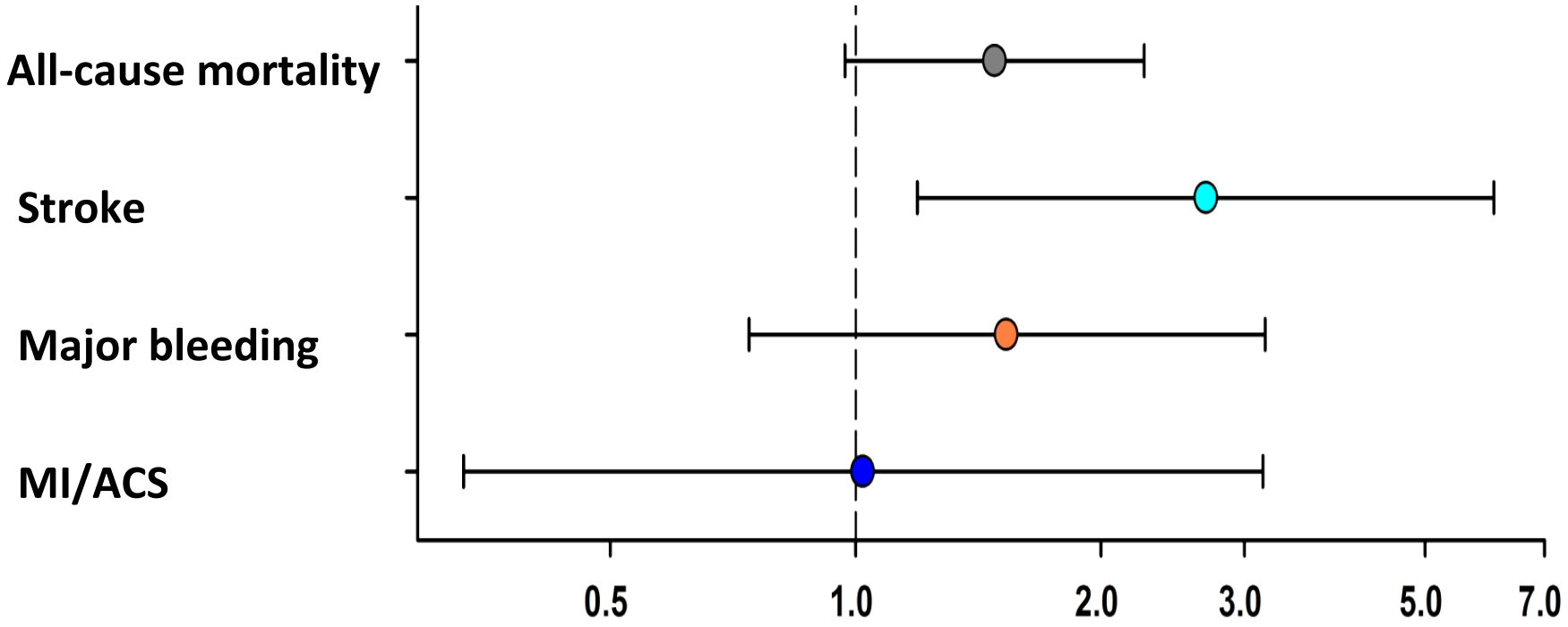
Propensity score matched cohorts



Adjusted HR (95% CI)

1.48 (0.97, 2.26)

2.69 (1.19, 6.07)

1.53 (0.74, 3.18)

1.02 (0.33, 3.16)

ACS: acute coronary syndrome; MI: myocardial infarction

Conclusions

- Patients who receive OAC+AP at the time of diagnosis of AF have a worse prognosis than patients on OAC alone
- Treatment with OAC+AP (vs OAC alone) was associated with indicators of increased risks of mortality, stroke and major bleeding
- The findings challenge the use of combined OAC+AP therapy among those without a clear indication for AP therapy

OAC: Oral anticoagulants; AP: antiplatelet therapy

Acknowledgements

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TRI Thrombosis Research Institute

www.garfieldregistry.org

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