

Rhythm versus rate control in patients with newly diagnosed atrial fibrillation – observations from the GARFIELD-AF registry

MK. Pope^{1,2}, TS. Hall³, S. Virdone⁴, D. Atar^{1,3}, AJ. Camm⁵, K. Pieper⁴, P. Jansky⁶, J. Steffel⁷, S. Haas⁸, BJ. Gersh⁹, S. Goto¹⁰, E. Panchenko¹¹, G. Baron-Esquivias¹², P. Angchaisuksiri¹³, AK. Kakkar⁴

¹Institute of Clinical Medicine, University of Oslo, Oslo, Norway. ²Hamar Hospital, Innlandet Hospital Trust, Hamar, Norway. ³Department of Cardiology, Oslo University Hospital, Ullevål, Oslo, Norway. ⁴Thrombosis Research Institute, London, United Kingdom. ⁵Cardiology Clinical Academic Group Molecular & Clinical Sciences Research Institute, St. George's University of London, London, UK. ⁶Motol University Hospital, Department of Cardiovascular Surgery, Prague, Czechia. ⁷University of Zurich, Zurich, Switzerland. ⁸Formerly Department of Medicine, Technical University of Munich, Munich, Germany. ⁹Mayo Clinic College of Medicine and Science, Department of Cardiovascular Medicine, Rochester, United States of America. ¹⁰Tokai University, Kanagawa, Japan. ¹¹National Medical Research Center of Cardiology, Moscow, Russian Federation. ¹²University Hospital of Virgen del Rocio, Seville, Spain. ¹³Ramathibodi Hospital, Mahidol University, Thailand

Purpose

To assess early rhythm versus rate control on clinical outcomes in patients with newly diagnosed non-valvular atrial fibrillation (AF).

Background

AF is associated with considerable morbidity and mortality.

Re-establishing and maintaining sinus rhythm (rhythm control) and controlling ventricular rate with atrioventricular node blocking agents (rate control) are the two fundamental approaches to the management of AF (1,2).

Real-world reports on the effect of early rhythm control on outcomes in patients with recent onset AF are limited.

The EAST-AFNET 4 trial demonstrated that an early rhythm control strategy reduced adverse cardiovascular outcomes when compared with guideline-mandated usual care – predominantly rate control (3).

Methods

GARFIELD-AF is currently the largest multinational, prospective AF registry worldwide. Data of patients with newly diagnosed AF and ≥ 1 investigator determined risk factor for stroke were analysed.

Stratification to rhythm or rate control was based on treatment strategy initiated at baseline (≤ 48 days post enrolment).

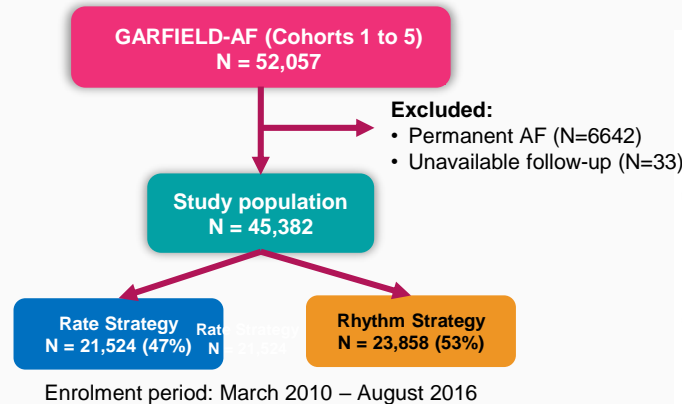
Rhythm control was defined as investigator reported initiation of rhythm control. Rate control was defined as investigator reported initiation of rate and absence of rhythm control.

Overlap propensity weighting and Cox proportional-hazards models were used to evaluate effect on outcomes.

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1) Kannel et al. Am J Cardiol. 1998. 2) Stewart et al. Am J Med. 2002
3) Kirchhof et al. New Engl J Med 2020

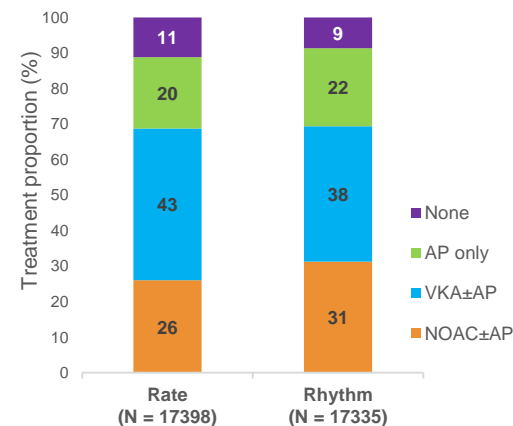
Flowchart for the selection of study population



Baseline characteristics

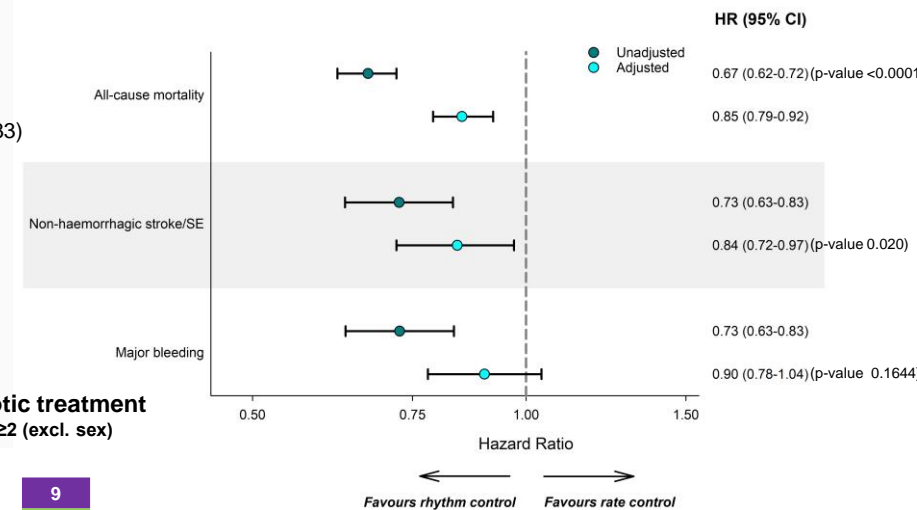
Variable	Rate Control	Rhythm Control
Female sex %	45	44
Age in years, median (Q1;Q3)	73 (65;79)	68 (60;76)
Caucasians %	58	65
Persistent AF %	19	16
Paroxysmal AF %	26	37
New Onset AF %	56	47
Prior stroke/TIA/SE %	13	9
Moderate to severe CKD %	12	9
CHA ₂ DS ₂ -VASc, median (Q1;Q3)	3 (2;4)	3 (2;4)
HAS-BLED, median (Q1;Q3)	1 (1;2)	1 (1;2)

Baseline antithrombotic treatment among CHA₂DS₂-VASc ≥ 2 (excl. sex)



Results

Unadjusted and adjusted hazard ratios within two-year follow-up by treatment strategy initiated at AF diagnosis



Conclusions

Rhythm control strategy was initiated at baseline in about half of the patients with newly diagnosed non-valvular AF.

After adjustment for confounding factors, a lower risk of mortality and non-haemorrhagic stroke/systemic embolism was observed for patients who received an early rhythm control strategy.

Acknowledgments

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