

Effect of Finerenone in With HFmrEF/HFpEF According to Body Mass Index

A Prespecified Analysis of the FINEARTS-HF Trial

Jawad H. Butt, MD PhD;¹ Alasdair D. Henderson, PhD;¹ Pardeep S. Jhund, MBChB MSc PhD;¹ Brian L. Claggett, PhD;² Akshay S. Desai, MD MPH;² James Lay-Flurrie, MSc;³ Prabhakar Viswanathan, MBBS PhD;⁴ Andrea Lage, MD;⁵ Markus F. Scheerer, PhD;⁶ Carolyn SP Lam, MD PhD;⁷ Michele Senni, MD;⁸ Sanjiv J Shah, MD;⁹ Adriaan A. Voors, MD;¹⁰ Johann Bauersachs, MD;¹¹ Cândida Fonseca, MD PhD;¹² Mikhail N. Kosiborod, MD;¹³ Gerard C.M. Linssen, MD PhD;¹⁴ Mark C. Petrie, MB ChB;¹ Morten Schou, MD PhD;¹⁵ Subodh Verma, MD PhD;¹⁶ Faiez Zannad, MD;¹⁷ Bertram Pitt, MD;¹⁸ Muthiah Vaduganathan, MD MPH;² Scott D. Solomon, MD;² John J.V McMurray MD¹

¹British Heart Foundation Cardiovascular Research Centre, University of Glasgow, Glasgow, United Kingdom; ²Cardiovascular Division, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, USA; ³Bayer PLC, Research & Development, Pharmaceuticals, Reading, UK; ⁴Bayer, Research & Development, Pharmaceuticals, Whippany, NJ, USA; ⁵Bayer, Research & Development, Pharmaceuticals, Sao Paulo, Brazil; ⁶Bayer AG, Global Medical Affairs, Berlin, Germany; ⁷National Heart Centre Singapore & Duke-National University of Singapore, Singapore; ⁸University Bicocca Milan, Italy, and, Papa Giovanni XXIII Hospital, Bergamo, Italy; ⁹Northwestern University Feinberg School of Medicine, Chicago, IL, USA; ¹⁰University Medical Center Groningen, Groningen, The Netherlands; ¹¹Department of Cardiology and Angiology, Hannover Medical School, Hannover, Germany; ¹²Department of Internal Medicine, Hospital São Francisco Xavier, NOVA MEDICAL School, Universidade Nova de Lisboa, Lisbon, Portugal; ¹³Saint Luke's Mid America Heart Institute, University of Missouri-Kansas City, Kansas City, Missouri, USA; ¹⁴Department of Cardiology, Hospital Group Twente, Almelo, Netherlands; ¹⁵Department of Cardiology, Herlev-Gentofte University Hospital, Hellerup, Denmark; ¹⁶Division of Cardiac Surgery, St. Michael's Hospital, University of Toronto, Toronto, Canada; ¹⁷Université de Lorraine, INSERM Clinical Investigation Centre, CHU, Nancy, France; ¹⁸University of Michigan, School of Medicine, Ann Arbor, MI, USA.

Background

- Obesity is associated with excessive adipocyte-derived aldosterone secretion, independent of the classical renin-angiotensin-aldosterone cascade
- Mineralocorticoid-receptor antagonists (MRAs) may be more effective in obese patients with heart failure (HF)

Purpose

- To examine the effects of the non-steroidal MRA finerenone, compared with placebo, according to body mass index (BMI) in patients with HF and mildly reduced or preserved ejection fraction (HFmrEF/HFpEF)

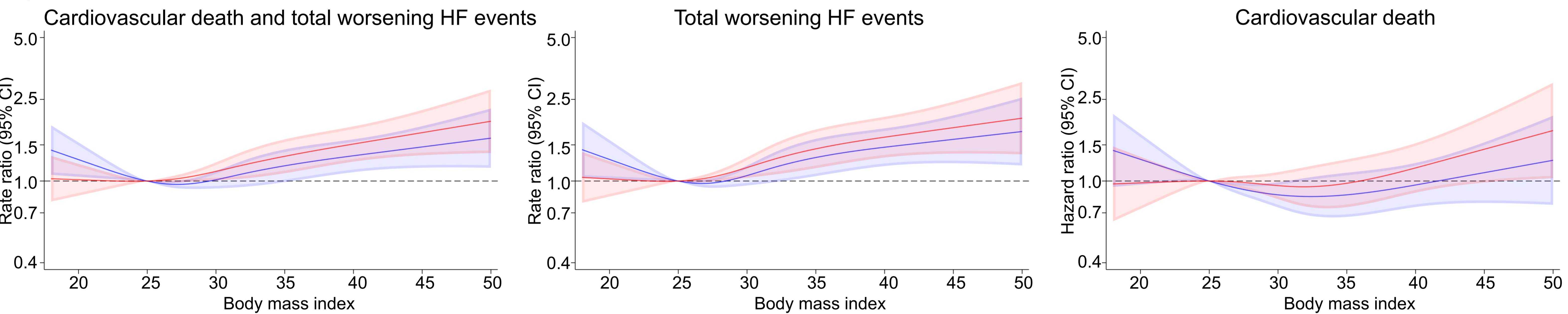
Methods

FINEARTS-HF was a randomized, double-blind, controlled trial in patients with HFmrEF/HFpEF, evaluating the efficacy and safety of finerenone compared with placebo

- **Key inclusion criteria:** NYHA II-IV; LVEF $\geq 40\%$; evidence of structural heart disease; elevated natriuretic peptides
- **Key exclusion criteria:** eGFR $< 25\text{ml/min/1.73m}^2$; potassium $> 5.0\text{ mmol/L}$
- **Participants:** 5,988 (99.8%) patients with data on BMI at baseline; median BMI 29.2 kg/m^2 (25th-75th percentile, $25.5\text{-}33.6\text{ kg/m}^2$)
- **Primary outcome:** Composite of cardiovascular death and total worsening HF events (HF hospitalization or urgent HF visit)

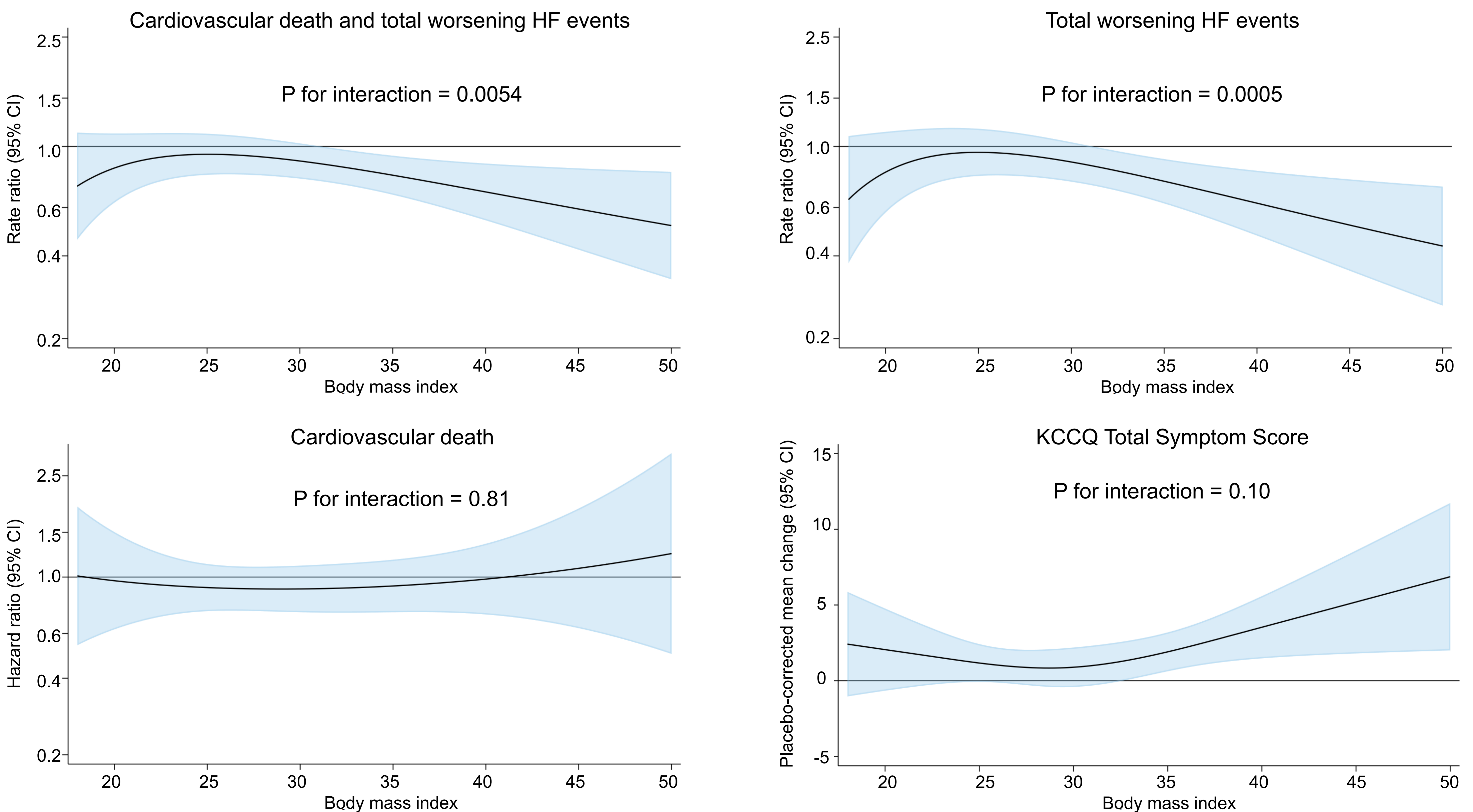
Results

Figure 1. Association between continuous BMI and the risk of outcomes



The blue spline is stratified for geographic region and LVEF stratification and adjusted for treatment assignment. The red spline is stratified by geographic region and baseline LVEF stratification and adjusted for treatment assignment, age, sex, systolic blood pressure, heart rate, eGFR, LVEF, NYHA functional class, prior HF hospitalization, type 2 diabetes, MI or coronary revascularization, atrial fibrillation/flutter, and log of NT-proBNP.

Figure 2. Effect of finerenone, compared with placebo, on clinical outcomes according to continuous BMI



Conclusions

In patients with HFmrEF/HFpEF enrolled in FINEARTS-HF, the beneficial effects of finerenone on clinical events and symptoms were observed across the range of BMI with a possibly greater effect in patients with higher BMI.

0.2

Simultaneous publication

