ESC European Society of Cardiology

European Heart Journal: Acute Cardiovascular Care (2025) **14**, 1–2
https://doi.org/10.1093/ehjacc/zuaf009

ISSUE SUMMARY
Educational Papers

Looking back, moving forward: a bold start to 2025

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Received 14 January 2025; accepted 14 January 2025; online publish-ahead-of-print 17 January 2025

As we usher in 2025, the *European Heart Journal: Acute Cardiovascular Care* delivers a January issue that exemplifies the transformative spirit of innovation in our field. This first issue of the year sets the stage for progress by spotlighting pivotal research spotlighted the journal in 2024 and forward-thinking ideas that promise to shape the future of acute cardiovascular and intensive care.

Among the standout studies featured this month is the GRECO trial by van Gils *et al.*,[1] which explored the potential of acyl-ghrelin to improve cognitive and psychosocial outcomes following out-of-hospital cardiac arrest (OHCA). This meticulously conducted Phase 2 trial enrolled 160 comatose patients randomized to receive acyl-ghrelin or placebo within 12 h post-arrest. While the intervention did not yield statistically significant improvements in cognitive performance, it demonstrated a meaningful reduction in depressive symptoms, achieving a clinically significant difference on the Hospital Anxiety and Depression scale. These findings, though preliminary, highlight the neuroprotective potential of acyl-ghrelin and call for further investigation into its broader role in post-cardiac arrest care.

Grand *et al.*[2] provide a secondary Bayesian analysis of the BOX trial, revisiting blood pressure targets for comatose OHCA patients. Their findings, derived from sophisticated statistical models, emphasize the uncertainty surrounding higher mean arterial pressure (MAP) targets, revealing a 33% probability of benefit but a 44% probability of harm for 1 year mortality outcomes. Intriguingly, the analysis identified age-related differences, with younger patients showing increased mortality risks at higher MAP levels. These results underscore the complexity of post-resuscitation care and the need for personalized approaches tailored to individual patient profiles.

In another groundbreaking study, Andrei *et al.*[3] critically examined the Venous Excess Ultrasound Grading System (VExUS), a tool designed to evaluate systemic venous congestion in the intensive care unit (ICU). Analysing over 500 haemodynamic evaluations, the study found that higher VExUS grades correlated predominantly with cardiac dysfunction parameters, such as left ventricular E/A ratio and right ventricular S-wave velocity. However, the tool demonstrated limited utility in non-cardiac conditions like sepsis, emphasizing the need for complementary methods to assess congestion in diverse ICU populations. This nuanced analysis offers a roadmap for refining diagnostic strategies and enhancing the management of systemic venous congestion.

Kunkel *et al.*[4] provide an illuminating study on sex-specific differences in neurohormonal activation following ST-elevation myocardial infarction (STEMI). Their multicentre investigation revealed that women exhibited significantly higher levels of biomarkers, such as pro-atrial natriuretic peptide and mid-regional pro-adrenomedullin, compared with men, alongside longer treatment delays and higher mortality rates. The findings underscore the prognostic importance of these biomarkers in women, suggesting that distinct physiological and treatment factors contribute to sex disparities in STEMI outcomes. This research serves as a clarion call for tailored approaches to addressing these disparities, ensuring equitable care for all patients.

Complementing these original investigations is our signature 'Best in the Year' series, which this month focuses on acute cardiac care and heart failure. This curated overview synthesizes the most influential trials and publications from 2024, offering readers a comprehensive snapshot of the year's progress. By bringing together key findings and expert perspectives, this feature aims to inspire innovation and guide future research efforts.

This issue reflects the journal's enduring commitment to advancing science and improving patient outcomes. By embracing cutting-edge research and addressing the complexities of acute cardiovascular care, it invites readers to be part of a dynamic and transformative journey.

Let this January issue serves as a clarion call for innovation, inspiring all of us to tackle the challenges ahead with curiosity, collaboration, and an unwavering dedication to excellence. Together, we can redefine the future of acute cardiovascular medicine.

Enjoy reading!

The editors team.

Funding

No funding.

Conflict of interest: none declared.

Data availability

No new data were generated or analysed in support of this research.

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