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Editorial

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Real-World Value of Angiotensin Receptor-Neprilysin Inhibitors (ARNIs) in Korea: Moving From Cost-Effectiveness to Implementation

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▸ See the article "Real-World Cost-Effectiveness of Angiotensin Receptor-Neprilysin Inhibitor in Heart Failure with Reduced Ejection Fraction in Korea" in volume 55 on page 907.

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The introduction of angiotensin receptor-neprilysin inhibitors (ARNIs), particularly sacubitril/valsartan, has transformed the management of heart failure with reduced ejection fraction (HFrEF) by significantly reducing mortality and hospitalization. The randomized PARADIGM-HF trial provided the pivotal evidence for its clinical superiority.[1)] However, the translation of clinical trial efficacy into both real-world effectiveness and cost-effectiveness, as both are critical but distinct considerations for policy and practice, remains a matter of national relevance, especially in countries with universal health coverage such as Korea.

In this context, the article "Real-World Cost-Effectiveness of Angiotensin Receptor-Neprilysin Inhibitor in Heart Failure with Reduced Ejection Fraction in Korea"[2)] addresses a critical policy question: Is sacubitril/valsartan a cost-effective treatment option in routine Korean practice? The authors utilize real-world data (RWD) from the National Health Insurance Service claims database, reflecting actual prescribing patterns, adherence, and outcomes. Their findings show that, despite higher drug acquisition costs, ARNIs provide value for money in the Korean setting when assessed against accepted willingness-to-pay thresholds.

These results are timely and relevant. Korea is facing a demographic transition toward an aging society, with heart failure emerging as a major cause of morbidity and healthcare spending. Recent studies in the *Korean Circulation Journal* have documented the increasing clinical and economic burden of heart failure in the Korean population, particularly among the elderly.[3)4)]

Several important points emerge from the study. First, the authors' use of national claims data overcomes the generalizability limitations of randomized controlled trials (RCTs). RCTs often exclude older adults, patients with multiple comorbidities, or poor adherence. This study, in contrast, reflects the real Korean heart failure population. Second, the study's modeling approach appropriately considers both clinical effectiveness and economic consequences, including downstream reductions in hospitalization costs. Third, by incorporating Korean-specific cost and utility inputs, the findings are context-sensitive and actionable.

Data Sharing Statement
The data required to reproduce these findings cannot be shared as this is an editorial.

The contents of the report are the author's own views and do not necessarily reflect the views of the *Korean Circulation Journal*.

Despite these strengths, some caution is warranted. As the authors acknowledge, the observational nature of claims data raises concerns about unmeasured confounding. Future research should validate or develop utility weights specific to the Korean population to enhance relevance and accuracy. Sensitivity analyses partially mitigate these concerns, but further prospective studies with patient-reported outcomes would strengthen the evidence base. Additionally, claims data are vulnerable to selection bias, diagnosis or outcome misclassification, and lack of granular clinical variables such as New York Heart Association class or ejection fraction.

Nevertheless, the policy implications of this study are compelling. The evidence presented here can guide further refinement of reimbursement policies, value-based pricing strategies, and physician education programs. In particular, the cost-effectiveness of ARNIs may vary by subgroups—such as age, comorbidities, or region—and tailoring policy interventions accordingly could enhance equity and efficiency.[5)]

Moreover, this study exemplifies the value of Korea's big data infrastructure in generating real-world evidence. Harnessing claims data, electronic medical records, and national registries is essential for supporting value-based healthcare decisions in cardiovascular disease.

In conclusion, this article provides important real-world evidence that sacubitril/valsartan is a cost-effective treatment for HFrEF in Korea. It bridges the gap between clinical trial results and healthcare decision-making and supports the broader uptake of ARNIs in national guidelines and practice. Going forward, the challenge lies in ensuring equitable and appropriate use across the healthcare system. By embracing RWD and pragmatic evaluation frameworks, Korea can lead the way in value-based cardiovascular care.

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