Validation of the KCCQ-12 against KCCQ-23 across >18,000 Participants Enrolled in 4 Large-Scale Trials of HF

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BACKGROUNDS

- ✓ The 23-item Kansas City Cardiomyopathy Questionnaire (KCCQ-23) has been formally qualified by the US FDA as a patient-reported outcome for use in HF trials.
- ✓ However, its length requires a longer completion time and may increase respondent burden.
- ✓ **The shorter 12-item version (KCCQ-12)** may be more convenient and accessible for participants.

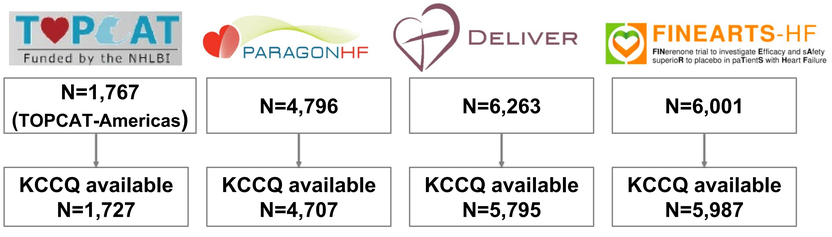
OBJECTIVES

- ✓ To examine the interchangeability of KCCQ-12 and KCCQ-23 in patients with HFmrEF/HFpEF.

METHODS

- ➢ We conducted a participant-level pooled analysis of 4 randomized clinical trials (TOPCAT, PARAGON-HF, DELIVER, and FINEARTS-HF), including adults with HFmrEF/HFpEF and available KCCQ-23 data.
- ➢ The KCCQ-12 overall summary score was derived from individual items of the KCCQ-23.
- ➢ We assessed correlations between KCCQ-23 and KCCQ-12 and compared prognostic discrimination and treatment-related changes.

STUDY FLOWCHART

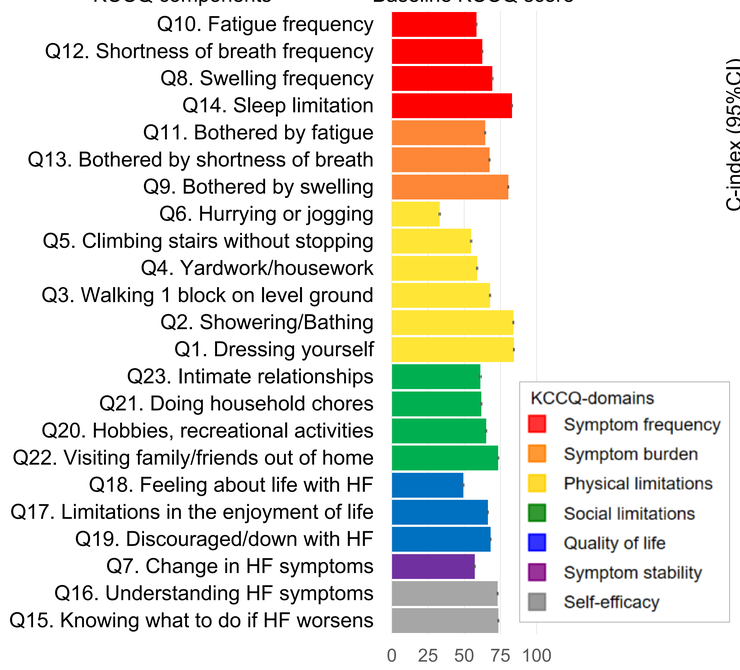


Age: 72 ± 9 years, female: 46%, BMI: 30.4 ± 6.2 kg/m^2, NYHA II: 72%, LVEF: 55 ± 8%, and NT-proBNP: 987 [IQR: 517, 1781] pg/mL

FINEARTS-HF was sponsored by Bayer AG. DELIVER was sponsored by AstraZeneca. PARAGON-HF was sponsored by Novartis. TOPCAT was sponsored by the National Heart, Lung, and Blood Institute of the National Institutes of Health. The presenter has nothing to disclose for this presentation.

RESULTS

Figure 1. Scores of 23 Individual KCCQ components



Average item-level missing for scoring: KCCQ-23: 4.9% / KCCQ-12: 3.9%

Figure 2. Strong correlation between KCCQ-12 and KCCQ-23

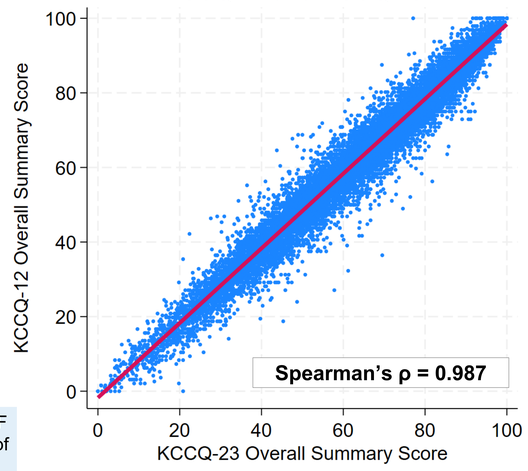


Figure 3. Similar discriminative abilities between KCCQ-23 and KCCQ-12

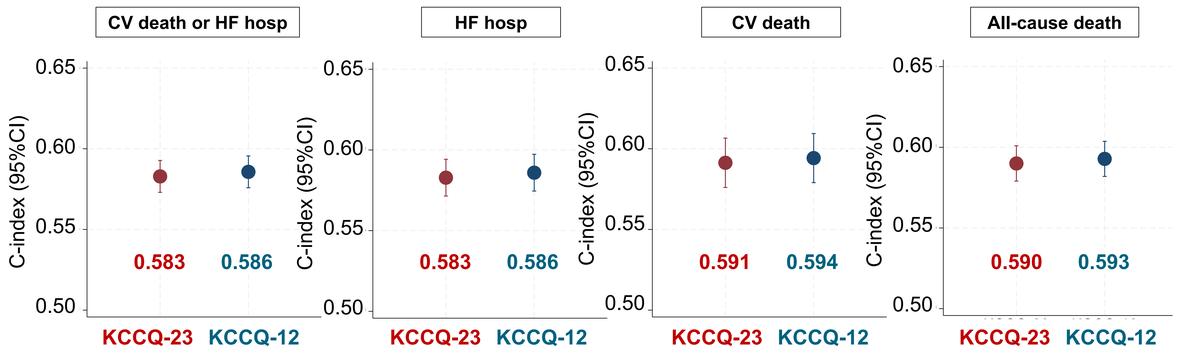
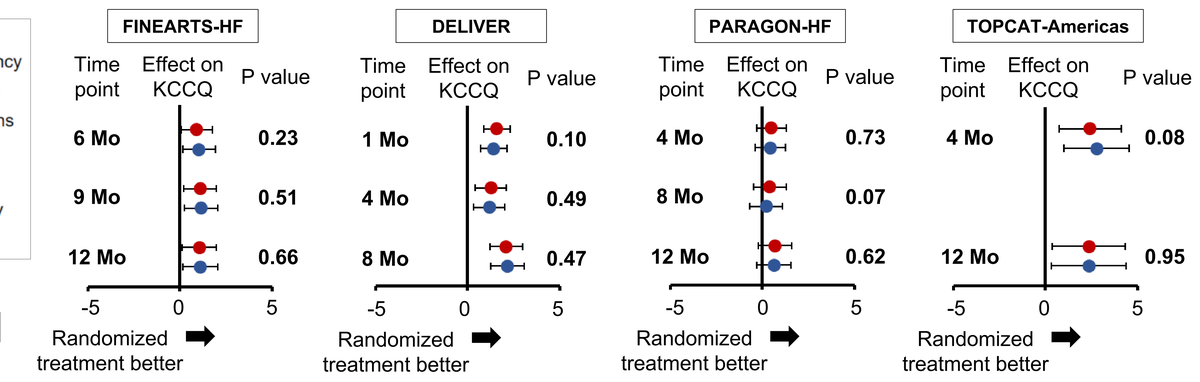


Figure 4. Comparable treatment responsiveness between KCCQ-23 vs. KCCQ-12



Summary of the results

- ✓ The KCCQ-12 had a strong correlation with the KCCQ-23.
- ✓ The prognostic discrimination of the KCCQ-12 for clinical outcomes was similar to, or greater than, that of the KCCQ-23.
- ✓ Randomized treatment effects were generally consistent between the two instruments across various HF pharmacotherapies.

Conclusions

In HFmrEF/HFpEF, the KCCQ-12 closely tracked the KCCQ-23, with comparable prognostic and treatment-response properties, supporting its use as a lower-burden alternative in HF clinical trials.

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