

Finerenone and Quality of Life Assessed Using EuroQol 5-Dimension Questionnaire Level Sum Score (EQ-5D-5L LSS) in Patients with Heart Failure and Mildly Reduced or Preserved Ejection Fraction

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PURPOSE

- The effect of finerenone on generic quality of life in patients with heart failure (HF) and mildly reduced or preserved ejection fraction (HFmrEF/HFpEF) has not been evaluated.
- We aimed to assess the relationship between the EuroQol 5-dimension 5-level questionnaire Level Sum Score (EQ-5D-5L LSS), clinical characteristics, and outcomes in patients with HFmrEF/HFpEF enrolled in the FINEARTS-HF trial and to evaluate the effect of finerenone on the EQ-5D-5L LSS in these patients.

METHODS

Population

- FINEARTS-HF was a prospective, randomized, double-blind trial comparing finerenone to placebo in patients with heart failure and left ventricular ejection fraction (LVEF) ≥ 40%. The primary endpoint was total (first and recurrent) HF events and cardiovascular (CV) death.

EQ-5D-5L questionnaire

The 5 dimensions

- Mobility ("walking around")
- Self-care ("washing or dressing self")
- Usual activities ("e.g., work, study, housework, family or leisure activities")
- Pain/discomfort ("pain or discomfort")
- Anxiety/depression ("anxious or depressed")

The 5 levels

- No problem (1)
- Slight problem (2)
- Moderate problem (3)
- Severe problem (4)
- Extreme problem (5)

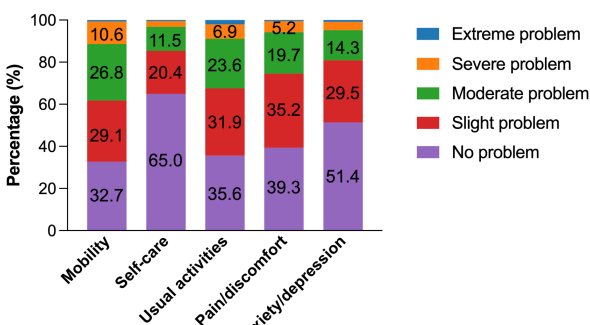
Level Sum Score (LSS)
Minimum = 5 [Best]
(score of 1 for each dimension)
Maximum = 25 [Worst]
(score of 5 for each dimension)

Statistical analysis

- Patients were stratified by EQ-5D-5L LSS tertiles (T1-T3) at baseline: T1 5-7, T2 8-10, and T3 11-25 points
- The Nelson-Aalen and K-M methods were used to estimate the mean cumulative (recurrent events) and cumulative incidence (time-to-first event) functions, respectively.
- The effect of finerenone, compared with placebo, on total (first and recurrent) events was calculated as a rate ratio (RR), with 95% CI, derived from Lin-Wei-Yang-Ying (LWYY) models.
- Ordered logistic regression was used to estimate the effect of Finerenone, compared with placebo, on EQ-5D-5L LSS.

RESULTS

Figure 1: Distribution of answers to EQ-5D-5L question



RESULTS

Table 1: Baseline characteristics according to tertiles of EQ-5D-5L LSS

	5-7	8-10	11-25	p-value
N	2178 (36.4)	1766 (29.5)	2034 (34.0)	
Demographics and physiologic measures				
Age, yr	70.2 ± 9.9	72.4 ± 9.4	73.5 ± 9.3	<0.001
Female	741 (34.0)	784 (44.4)	1194 (58.7)	<0.001
HR, bpm	70.6 ± 11.7	71.4 ± 12.0	72.3 ± 11.7	<0.001
BMI, kg/m ²	28.5 ± 5.6	30.0 ± 6.0	31.4 ± 6.4	<0.001
Comorbidities				
AF	1105 (50.7)	970 (54.9)	1185 (58.3)	<0.001
Hypertension	1865 (85.6)	1568 (88.8)	1873 (92.1)	<0.001
Stroke	227 (10.4)	192 (10.9)	287 (14.1)	<0.001
Type 2 DM	822 (37.8)	677 (38.5)	930 (45.8)	<0.001
COPD	217 (10.0)	233 (13.2)	318 (15.6)	<0.001
Sleep apnea	108 (5.0)	116 (6.6)	175 (8.6)	<0.001
CKD	929 (42.7)	860 (48.7)	1087 (53.4)	<0.001
Heart failure history and characteristics				
Time since index HF event				<0.001
≤ 7 days	302 (13.9)	380 (21.5)	534 (26.3)	
> 7 days to ≤ 3 months	838 (38.5)	562 (31.8)	617 (30.3)	
≥ 3 months	1038 (47.7)	824 (46.7)	883 (43.3)	
NYHA III/IV	322 (14.8)	535 (30.3)	990 (48.7)	<0.001
KCCQ-TSS	82.7 ± 17.7	66.9 ± 19.9	50.3 ± 21.4	<0.001
NT-proBNP, pg/ml	952 (423-1719)	1042 (446-1994)	1157 (478-2304)	<0.001
Treatment				
Loop diuretics	1838 (84.4)	1569 (88.8)	1813 (89.1)	<0.001
ACEI/ARB/ARNI	1783 (81.9)	1399 (79.2)	1560 (76.7)	<0.001
ARNI	263 (12.1)	142 (8.0)	106 (5.2)	<0.001

Figure 2: Cumulative incidence of clinical outcomes according to tertiles of baseline EQ-5D-5L LSS

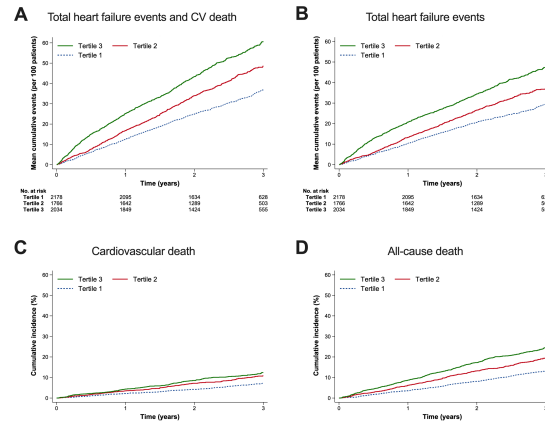
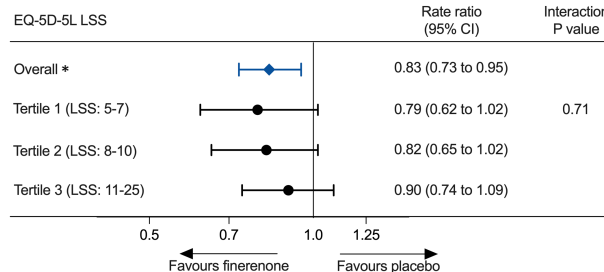


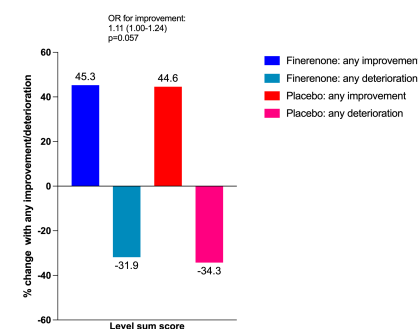
Figure 3: Effect of finerenone on the primary outcome according to baseline EQ-5D-5L LSS tertiles



All the analysis were stratified according to geographic region and baseline LVEF (<60%, ≤60%).

*23 patients without baseline EQ-5D-5L LSS were excluded.

Figure 4: Effect of finerenone on EQ-5D-5L LSS



CONCLUSIONS

- The EQ-5D-5L is a valuable tool for assessing quality-of-life in heart failure patients, and finerenone significantly reduced HF events in HFmrEF/HFpEF across the spectrum of baseline EQ-5D-5L LSS.

DISCLOSURES

The FINEARTS- HF trial was funded by Bayer.