FINEARTS-HF
FINerenone trial to investigate Efficacy and sAfety superioR to placebo in paTientS with Heart Failure

Scientific Sessions

Finerenone And Liver Fibrosis Assessed By Fibrosis-4 (FIB-4) Index In Patients With Heart Failure And Mildly Reduced Or Preserved Ejection Fraction - *Results From The FINEARTS-HF Trial*

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Disclosures

Relevant financial relationships:

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Relevant nonfinancial relationships

Nothing to disclose

Background: Liver fibrosis and HFmrEF/HFpEF

- Liver fibrosis is thought to be a potentially common comorbidity in heart failure (HF), driven by hepatic venous congestion and hypoperfusion, systemic inflammation, and metabolic disturbances.
- The fibrosis-4 (FIB-4) index is an established non-invasive score used to predict the likelihood of liver fibrosis.

$$\text{FIB-4} = \text{Age [years]} \times \text{AST [U/L]} \div (\text{PLT } [10^9/\text{L}] \times \sqrt{(\text{ALT[U/L]})}$$

- The prognostic value of the FIB-4 index in patients with HF and mildly reduced or preserved ejection fraction (HFmrEF/HFpEF) is uncertain. We examined the FIB-4 index in the FINEARTS-HF trial.

FINEARTS-HF Study Design

Prospective, randomized, double-blind, placebo-controlled trial comparing finerenone to placebo in patients with heart failure and left ventricular ejection fraction (LVEF) ≥ 40%

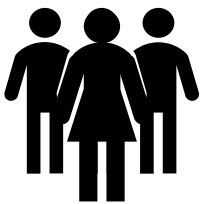
- Age ≥40 years
- NYHA class II-IV
- LVEF ≥40%
- Hospitalized, recently hospitalized, or ambulatory

Eligibility Criteria

- Structural Heart Disease
- (LVH or LA Enlargement)
- Elevated Natriuretic Peptides
- Diuretics in the 30d prior to randomization

N=6,001

Double-blind treatment period



Finerenone 10, 20, and 40mg dosing based on *eGFR*

Matching Placebo

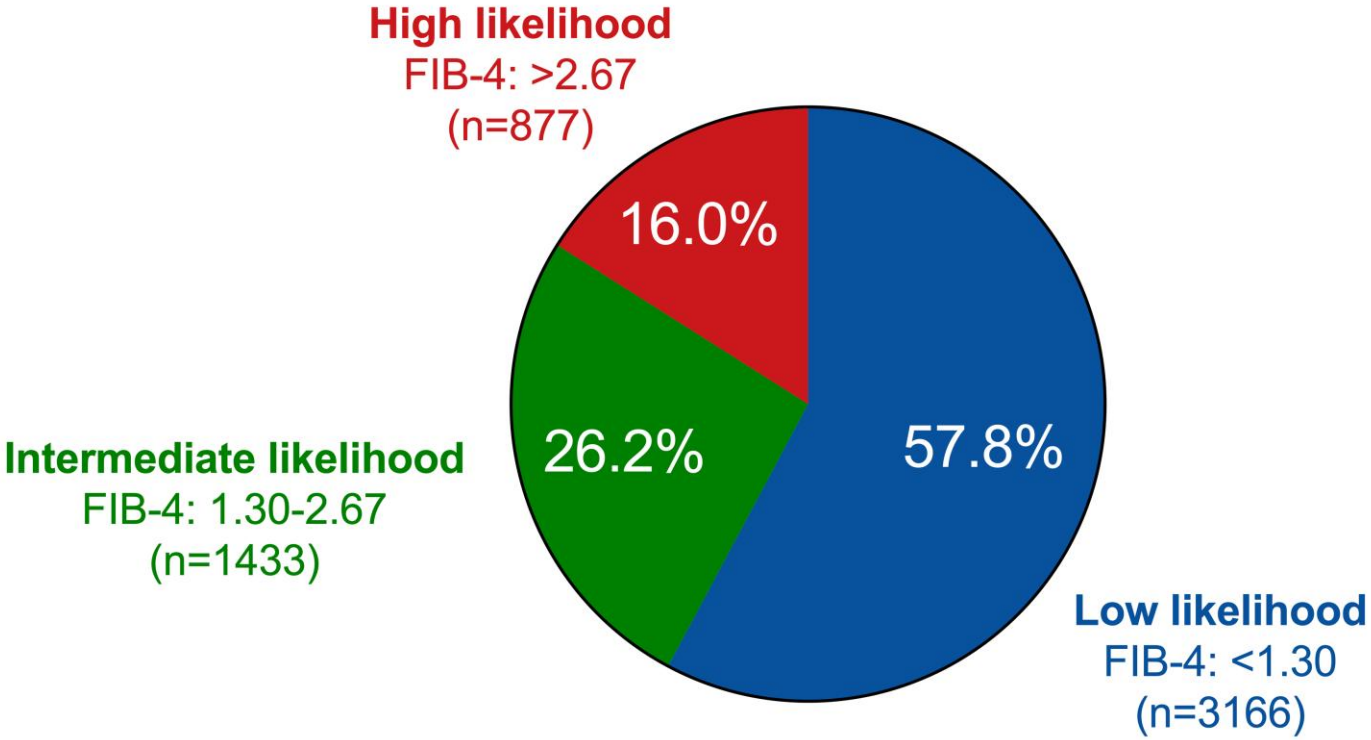
Primary outcome: Total (first and recurrent) HF events or CV death

Visits: Month 1, then 3-monthly for first 12 months, 4-monthly visits thereafter with telephone contact in between

Vaduganathan et al. Eur J Heart Fail 2024; Solomon et al. N Engl J Med 2024.

Fibrosis-4 (FIB-4) index in FINEARTS-HF

N = 5476 (91.1%) had FIB-4 index calculable at baseline



Baseline characteristics according to baseline FIB-4 index

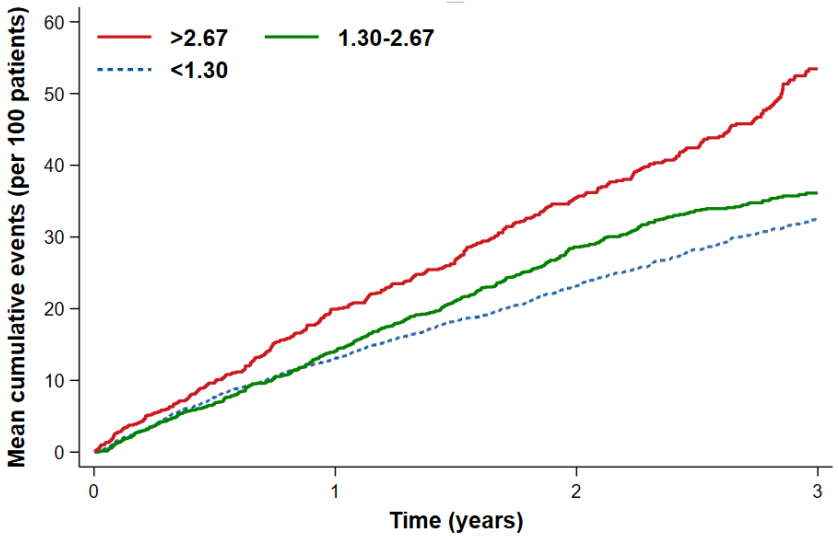
	Low likelihood <1.30 (n=3166)	Intermediate likelihood 1.30-2.67 (n=1433)	High likelihood >2.67 (n=877)	*P* for trend
Age (years), mean	70.4	71.8	77.7	*<0.001*
Male sex, %	50.7	60.5	59.5	*<0.001*
SBP (mmHg), mean	129.9	129.1	128.0	*0.001*
BMI (kg/m^2), mean	30.8	29.5	27.5	*<0.001*
Atrial fibrillation, %	49.4	56.9	68.8	*<0.001*
Myocardial infarction, %	26.5	26.8	21.0	*0.006*
Stroke, %	11.2	11.1	16.1	*<0.001*
Type 2 diabetes, %	45.6	36.7	32.2	*<0.001*
KCCQ-TSS, mean	66.2	68.6	69.1	<0.001
NT-proBNP, median	867	1124	1539	*<0.001*
eGFR (ml/min/1.73 m^2) , mean	63.9	62.6	55.6	<0.001

Baseline characteristics according to baseline FIB-4 index

	Low likelihood <1.30 (n=3166)	Intermediate likelihood 1.30-2.67 (n=1433)	High likelihood >2.67 (n=877)	*P* for trend
ALT (U/L), mean	19.8	21.0	22.5	*0.040*
AST (U/L), mean	19.6	24.5	31.9	*<0.001*
ALT/AST ratio, median	1.1	1.3	1.5	*<0.001*
Hepatic steatosis index, median	39.9	37.0	34.0	*<0.001*
MELD-XI score, median	10.1	10.6	11.5	*<0.001*
APRI, median	0.2	0.3	0.5	*<0.001*
BARD score 2-4, %	89.9	95.0	97.6	*<0.001*
Loop diuretic, %	86.1	88.4	90.6	*<0.001*
Beta-blocker, %	85.7	86.3	81.2	*0.008*
ACEI, %	35.6	38.4	33.0	*0.53*
ARB, %	45.6	41.0	*40.8*	*0.002*

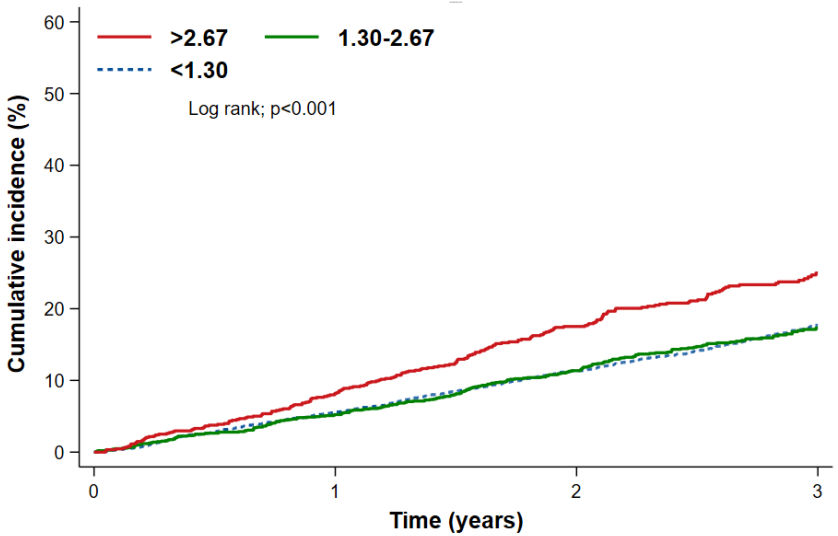
Cumulative incidence of clinical outcomes according to baseline FIB-4 index

Total HF events and CV death



No. at risk				
<1.30	3166	2971	2311	901
1.30-2.67	1433	1354	1070	413
>2.67	877	802	626	258

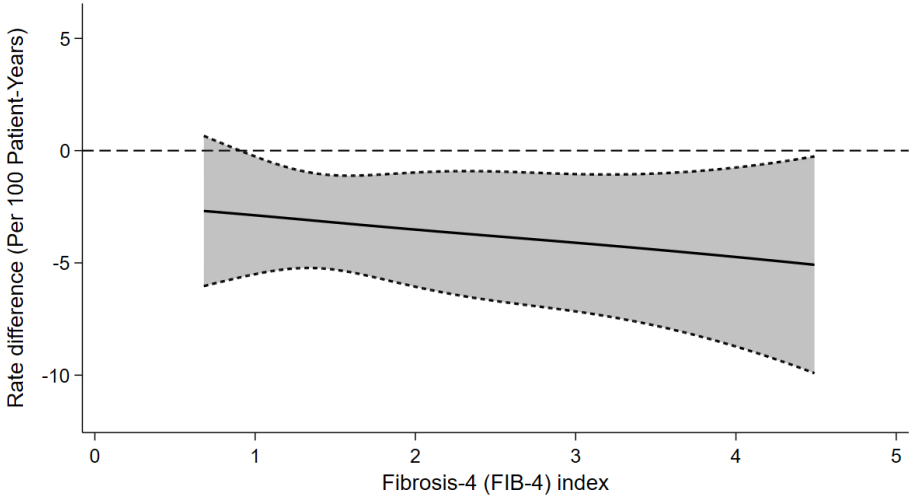
All-cause death



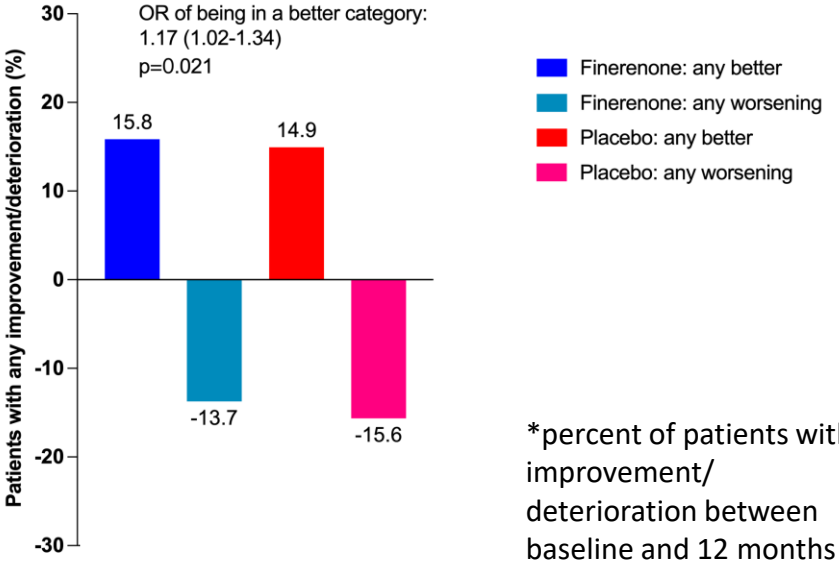
No. at risk				
<1.30	3166	2986	2325	906
1.30-2.67	1433	1357	1079	419
>2.67	877	803	629	261

Effect of finerenone versus placebo on the primary endpoint according to FIB-4 index (and on FIB-4 index)

Total heart failure events and CV death



Percent patients with improvement or deterioration in FIB-4 category*



*percent of patients with improvement/ deterioration between baseline and 12 months

Conclusions: Finerenone and FIB-4 index in patients with HFmrEF/HFpEF

- In FINEARTS-HF, about 1 in 6 patients had a high FIB-4 score indicating a high likelihood of liver fibrosis (although this remains to be confirmed in heart failure).
- FIB-4 score independently predicted the risk of clinical outcomes in HFmrEF/HFpEF.
- Finerenone consistently reduced the primary outcome in FINEARTS-HF across the range of FIB-4 index at baseline.
- In addition, treatment with finerenone improved FIB-4 index between baseline and 12 months.