

EMPEROR-Preserved: Empagliflozin Outcome Trial in Patients with Chronic Heart failure with Preserved Ejection Fraction

Purpose:

Evaluate the effects of SGLT2 inhibitor (Empagliflozin) on cardiovascular death and heart failure hospitalizations in patients with heart failure with a preserved ejection fraction (HFpEF), with or without diabetes.

Trial Design: N=5998, International multicenter (622 centers in 23 countries) randomized placebo controlled, double-blind, event-driven study. Symptomatic HFpEF patients (LVEF>40%) received empagliflozin (10mg once daily) or placebo, in addition to usual therapy. Median follow up period was 26 months.

Primary Endpoint: Composite of CV death or heart failure hospitalization.

Secondary Endpoints: Heart Failure hospitalizations(including first and recurrent events), rate of decline in eGFR during treatment.

	Empagliflozin n=2997	Placebo n=2991	HR (95% CI)	P-value
Primary Composite Outcome: Composite of CV death or HF hospitalization	415 (13.8%)	511 (17.1%)	0.79 (0.69-0.90)	< 0.001
HF hospitalization	259 (8.6%)	352 (11.8%)	0.71 (0.60-0.83)	
Cardiovascular Death	219 (7.3%)	244 (8.2%)	0.91 (0.76-1.09)	
Secondary Outcomes specified in hierarchical testing procedure				
Total number of HF hospitalizations	407	541	0.73 (0.61-0.88)	< 0.001
eGR mean slope change per year (ml/min/1.73m ²)	-1.25±0.11	-2.62±0.11	1.36 (1.06-1.66)	< 0.0001

Results: Empagliflozin reduced the combined risk of cardiovascular death or heart failure hospitalization in patients with HFpEF by 21%, regardless of the presence or absence of diabetes. This benefit was consistent across pre-specified EF subgroups. Empagliflozin reduced total (first and recurrent) hospitalizations for HF by 27%.

