

## Sacubitril/valsartan promotes cardiac reverse remodeling and preserves renal function in a real-world heart failure and reduced ejection fraction (HFrEF) population

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**Aims.** To evaluate the effects of Sacubitril/Valsartan (S/V) on clinical, laboratory and echocardiographic parameters and outcomes in a real-world population with heart failure with reduced ejection fraction (HFrEF).

**Methods and results.** Prospective study enrolling consecutive patients with HFrEF treated with S/V. The primary outcome was HF rehospitalization; secondary outcomes were all-cause death, cardiac death and the composite of cardiac death and HF rehospitalization at 12 months follow up. The clinical outcome was compared with a retrospective cohort of 90 HFrEF patients treated with standard medical therapy by using propensity score weighting. At 6 months follow-up, changes in symptoms, echocardiographic parameters, eGFR and furosemide dose were also evaluated. The study population consisted of 90 patients (66.1 ± 11.7 years). At 6 months FU, a significant improvement in NYHA class, LVEF (from 31.0% to 34.0%;  $p = 0.001$ ), LVESV (from 115.0 to 101.0 mL;  $p = 0.033$ ) and sPAP (from 31.0 to 25.0 mmHg;  $p = 0.024$ ) was observed. Moreover, S/V did not affect negatively eGFR and was associated with a significantly lower dose of furosemide prescribed. The propensity score weighting adjusted regression analysis showed a significantly lower risk for HF rehospitalization (HR, 0.131; 95% CI, 0.034-0.503;  $p = 0.003$ ) and the composite outcome (HR, 0.162; 95% CI, 0.053-0.492;  $p = 0.001$ ) among patients treated with S/V as compared to the standard therapy group.

**Conclusions.** In this real-world HFrEF population, S/V reduced HF rehospitalization and cardiac death at 1 year. Moreover, S/V improved significantly NYHA class, LVEF, LVESV and sPAP at 6 months, preserving renal function and reducing the need of furosemide.

### Table

Study outcomes	Unadjusted model		
	HR	95% CI	p-value
HF rehospitalization	0.273	0.101-0.740	0.011
Cardiac death	0.443	0.137-1.440	0.176
Composite outcome	0.331	0.155-0.710	0.005
All-cause death	0.666	0.272-1.628	0.372
	Adjusted model		
	HR	95% CI	p-value
HF rehospitalization	0.131	0.034-0.503	0.003
Cardiac death	0.259	0.047-1.415	0.119
Composite outcome	0.162	0.053-0.492	0.001
All-cause death	0.713	0.201-2.529	0.601

Adjusted and unadjusted HR for the study outcomes.  
Abstract 412 Figure.

