**Abstract: P1708**

**Sacubitril/Valsartan in clinical practice, how does it work?**

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**Topic(s):**
Chronic Heart Failure: Pharmacotherapy

**Citation:**
Background
Sacubitril/Valsartan (Sac/Val) an angiotensin receptor blocker–neprilysin inhibitor (ARNI) has been proven to be more effective than enalapril for symptomatic patients with heart failure (HF) with reduced ejection fraction (HFrEF) despite optimal therapy. It was introduced in ESC guidelines and in Swedish guidelines in 2016. However, the real world HF population differ from patients in randomized controlled trials in many clinical aspects.

**Aim**
This study was aimed to investigate eligibility, titration and tolerability for Sac/Val in a real-world clinical setting.

**Methods**
This retrospective cohort study consisted of two parts; part 1 (eligibility study): consecutive inclusion of all patients discharged from a hospital due to HF (ICD10 I50) from 2016-11-01 until 2017-10-31. Patients were judged to be eligible to Sac/Val based on ESC criteria (EF =40%, NT-proBNP >400 ng/L, target dose of ACE-inhibitor/angiotensin receptor blocker (ARB), GFR>30 ml/h/1,73m2, S-Potassium<5.2 mmol/L, treatment with beta blocker and MRA) or Swedish criteria (EF =35%, highest tolerable dose of ACE-inhibitor/ARB + Beta blocker and MRA, GFR>30, S-potassium <5,2).

Part 2 (tolerability study): from patients who received Sac/Val during the same study period data regarding initial dose, up-titration, adverse events, hospitalisation and mortality during follow-up (from 6 months to one year) were collected.

**Results**
During one year, 1355 patients (mean age 78±13 yrs) were hospitalized due to HF. Among them, 562 patients had ejection fraction =40% in which 10.9% of the patients were eligible for initiation of Sac/Val based on ESC criteria, and additionally 15.9% were eligible according to Swedish recommendations. During the same period, 96 patients (mean age 66±12 yrs) were initiated with Sac/Val, 18 % discontinued, 15.6% developed S-K=5.5 mmol/L, 13.5% S-creatinine=221 µmol/L and 7.3% hypotension. During follow-up 24.0% were readmitted for HF and 13.8% died (fig1). Logistic regression analysis showed lower starting dose, renal disease and higher NTpro-BNP level as predictors for worsening of renal function and higher number of comorbidities as predictors for readmission due to HF. Analysis also showed renal disease as predictor for hypotension and further, high age, elevated NTpro-BNP and more comorbidities as predictors for death.

**Conclusions**
In our consecutive hospital HF cohort, 26.8% of patients with reduced EF were eligible for Sac/Val. Those who received Sac/Val were younger. Side effects and discontinuation rates were comparable to those observed in the PARADIGM trial except a higher percentage of hypotension, worsening of renal function and HF readmission.
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**Adverse Effects during Introduction of Sac/Val**

- High Potassium > 5.5 mmol/l
- High Creatinine > 221 µmol/l
- Hypotension < 90 mmHg
- Cough
- GI side effects
- VT/VF
- Angioedema
- Hospitalization for HF
- Hospitalisation CV cause
- Death

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**Diagram: Adverse Effects during Introduction of Sac/Val**

- High Potassium > 5.5 mmol/l: 23 patients
- High Creatinine > 221 µmol/l: 12 patients
- Hypotension < 90 mmHg: 12 patients
- Cough: 15 patients
- GI side effects: 13 patients
- VT/VF: 2 patients
- Angioedema: 3 patients
- Hospitalization for HF: 9 patients
- Hospitalisation CV cause: 7 patients
- Death: 1 patient