Drug Utilization Review of Outpatient Sacubitril/valsartan Prescribing

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BACKGROUND

- 5.7 million adults in the United States have heart failure (HF)[1]
- HF patients with reduced ejection fraction (HFrEF) were previously managed on an angiotensin converting enzyme inhibitor (ACE-I) or angiotensin receptor blocker (ARB), in combination with beta blockers, diuretics, and/or potassium-sparing diuretic.[4]
- Sacubitril/valsartan (Entresto™) was approved on July 7, 2015 as the only angiotensin receptor neprilysin inhibitor (ARNI) used in heart failure patients[2]
  - Indicated to reduce cardiovascular death and hospitalization for HF in patients with chronic symptomatic HFrEF (NYHA Class II-IV)[2]
  - PARADIGM-HF compared sacubitril/valsartan to enalapril, which found a reduction in cardiovascular death and hospitalization for HF ($p<0.001$)[3]
- 2017 Focused Update of the 2013 American College of Cardiology/American Heart Association recommended the use of sacubitril/valsartan in patients with chronic symptomatic HFrEF who have an adequate blood pressure and are already tolerating a reasonable dose of an ACE-I or ARB[4]

SACUBITRIL/VALSARTAN DOSING

Initiation	Start 24/26 mg BID
After 2 weeks	Titrate up to 49/51 mg BID
After 2 weeks	Titrate to target dose of 97/103 mg BID

OBJECTIVES

Evaluate appropriate prescribing of sacubitril/valsartan in the outpatient setting, assess prescribing trends, achievement of targeted doses, and limitation to achieving target doses.

OUTCOMES

Primary	Appropriate sacubitril/valsartan prescribing
Secondary	• Outpatient prescribing trends • Barriers to use and titration • HF hospitalizations • HF medication management • Ejection fraction (EF)

METHODS

IRB approved, single center, retrospective EMR review of outpatient sacubitril/valsartan prescriptions at a teaching hospital from Jan. 2017 to Jun. 2017

n= 114

Inclusion
109 – Patients 18 years or older

Exclusion
5 – Patients prescribed but not initiated

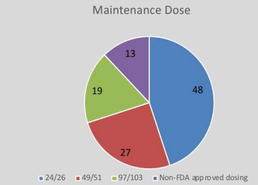
DATA COLLECTION

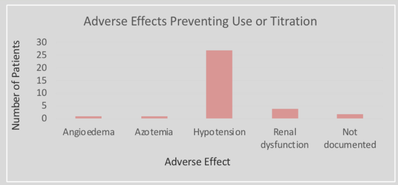
Chart review	Sacubitril/valsartan management	Follow-Up
❑ Patient demographics ❑ NYHA Class, starting EF ❑ Adjunct HF medications	❑ Prescriber and setting ❑ Starting dose, titration, maintenance dose ❑ Adverse effects prohibiting titration or use	❑ EF at one year follow-up after initiation ❑ Number of HF associated hospitalizations

BASELINE CHARACTERISTICS

Age (avg. ± SD)		67 ± 13.85	
Sex		77% Males	
NYHA Class	Class I	10 (9%)	
	Class II	49 (43%)	
	Class III	41 (36%)	
	Class IV	3 (3%)	
	Not documented	11 (10%)	
Ejection fraction (EF)		< 10%	0
		10 – 35%	98 (86%)
		35 – 40%	13 (11%)
		> 40%	2 (2%)
		Not available	1 (<1%)
Previously on an ACE-I/ARB		92%	

RESULTS





PRIMARY OUTCOME		
Patients on target dose	17%	
Starting EF < 40%	97.3%	
SECONDARY OUTCOME		
Type of prescriber	Attending physician Resident physician NP/PA	32% 4.4% 62.5%
Prescriber specialty	Heart failure Cardiology	82% 13%
Setting sacubitril/valsartan was initiated	Outpatient: 92%; Inpatient: 8%	
Heart failure hospitalizations (avg. ± SD)	1.5 ± 3.36	
EF < 40% at follow-up	59.3%	

CONCLUSIONS

- Sacubitril/valsartan is mostly prescribed by NP/PAs following patients in the HF clinic
- 83% of patients did not reach target dose but EF and medication management was optimized
- Optimize and provide education on prescribing at our institution

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DISCLOSURE

Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities.