Drug utilization review of outpatient sacubitril/valsartan prescribing practice

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BACKGROUNG:

Sacubitril/valsartan (Entresto™) is an angiotensin receptor-neprilysin inhibitor that has shown survival benefits in patients with NYHA class II-IV heart failure and an ejection fraction less than or equal to 35%. Recent literature has indicated that sacubitril/valsartan can be considered a first-line therapy option for heart failure in place of angiotensin converting enzyme-inhibitors (ACE-I) or angiotensin receptor blockers (ARB). The PARADIGM-HF trial was stopped prematurely as sacubitril/valsartan was superior to enalapril in reducing the risks of death and of hospitalization for heart failure. The objective of this study is to evaluate appropriate prescribing of sacubitril/valsartan in the outpatient setting, assess prescribing trends, achievement of targeted doses, and limitations to achieving target doses.

METHODS:

A single-center retrospective chart review will be conducted including all patients greater than 18 years old prescribed sacubitril/valsartan within our outpatient health system during the time period of 01/01/2017 to 06/31/2017 and one year follow-up. The following data will be collected: patient's age, gender, prescriber, NYHA class, ejection fraction, patient switched from previous ACE-I or ARB therapy appropriately if applicable, starting dose, dose titration, maintenance dose, and adverse effects limiting titration to target dose or continued use. Additionally, ejection fraction and number of heart failure related admissions will be collected after the start of sacubitril/valsartan and at one year follow-up.

RESULTS:

Only 18% of patients reviewed reached target dose of sacubitril/valsartan 97/103 mg twice daily. 97.3% of patients had a documented EF <40% and were appropriately switched or started on sacubitril/valsartan. 92% of prescriptions were outpatient and 82% of those were in Heart Failure clinic. Prescribing individuals were NP/PA (62.5%), attending physicians (32%), or resident physician (4.4%). Patients with HF maintained on sacubitril/valsartan had on average 1.5 HF hospitalizations, and 38% of patients reviewed showed an improvement in EF one-year after initiation.

CONCLUSION:

This drug utilization review showed both improvements in EF, as well as optimization of HF medication management in patients regardless of their sacubitril/valsartan dose. Dose titration to target dose was mostly limited by hypotension. Weigh the risks-vs-benefits of pushing patient to target dose when benefits are also seen at lower doses.