

Vericiguat use in a real-world HFrEF patient population: updated findings from the first two post-approval years

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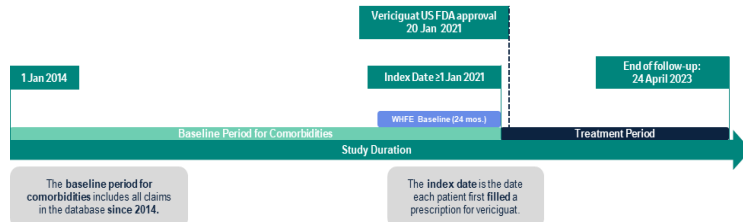
Background

- Worsening heart failure events (WHFE) affect up to one-third of patients with HFrEF
- Vericiguat, the first agent indicated specifically for a WHF population, is a novel soluble guanylate cyclase (sGC) stimulator approved in 2021 to reduce the risk of cardiovascular death and HF hospitalization
- We describe baseline characteristics, comorbidities, and concurrent medication use among patients treated with vericiguat during the first two years following US FDA approval

Methods

- We identified adults in the TriNetX Open Claims Database who filled a prescription for vericiguat between 1 Jan 2021 and 24 April 2023
- Patient demographics, comorbidity burden, and comedication (including guideline-directed medical therapy for HFrEF) were described by achievement of vericiguat target dose (10 mg)
- Categorical variables were compared across groups using Pearson Chi-Square tests, and continuous variables were compared using non-parametric Kruskal-Wallis tests

Figure 1. Study schema for a hypothetical patient



Results

Table 1. Patient demographic characteristics at vericiguat initiation

	All dispensed (N=5527)	Record of reaching 10 mg (N=1867, 33.8%)	No record of reaching 10 mg (N=3660, 66.2%)	P value
Age at vericiguat initiation (years)				0.13
Median (IQR)	69 (59 - 78)	68 (59 - 77)	69 (59 - 78)	
Female, n (%)	1809 (32.7%)	577 (30.0%)	1232 (33.7%)	0.04*
Race, n (%)				<0.05*
White	2482 (44.9%)	878 (47.0%)	1604 (43.8%)	
Black	504 (9.1%)	177 (9.5%)	327 (8.9%)	
Asian and Other	104 (1.9%)	26 (1.4%)	78 (2.1%)	
Not Specified	2437 (44.1%)	786 (42.1%)	1651 (45.1%)	
Region, n (%)				0.02*
Northeast	820 (14.8%)	242 (13.0%)	578 (15.8%)	
Midwest	806 (14.6%)	262 (14.0%)	544 (14.9%)	
South	2700 (48.9%)	958 (51.3%)	1742 (47.6%)	
West	1174 (21.2%)	399 (21.4%)	775 (21.2%)	
Other	27 (0.5%)	6 (0.3%)	21 (0.6%)	

*Denotes statistically significant difference between groups.

Results

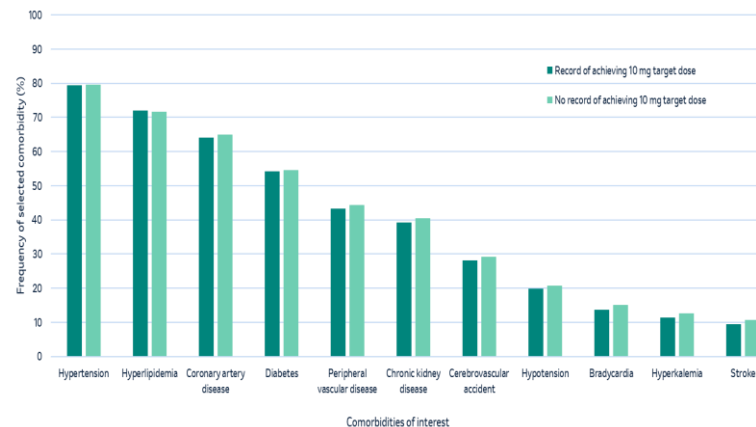
- Among 5527 patients treated with vericiguat, median age was 69 years (Table 1)
- Most patients in the sample were male (67%), and most covered (47%) by Medicare (Table 2)
- Patients were more commonly from the South (49%) as compared with other US regions (P<0.02)
- Approximately one-third of patients had a record of achieving the 10mg target dose before data cutoff

Table 2. Patient-payer mix and overall burden of comorbidities

	All dispensed (N=5527)	Record of reaching 10 mg (N=1867, 33.8%)	No record of reaching 10 mg (N=3660, 66.2%)	P value
Insurance type, n (%)				<0.01*
Commercial	2212 (40.0%)	804 (43.1%)	1408 (38.5%)	
Medicaid	550 (10.0%)	165 (8.8%)	385 (10.5%)	
Medicare	2568 (46.5%)	854 (45.7%)	1714 (46.8%)	
Dual-eligible and Other	197 (3.6%)	44 (2.4%)	153 (4.2%)	
CCI, Median (IQR)				0.26
Median (IQR)	7 (4 - 10)	7 (4 - 10)	7 (4 - 10)	
1-3	1065 (19.6%)	376 (20.5%)	689 (19.2%)	0.31
4-6	1440 (26.5%)	487 (26.5%)	953 (26.4%)	
>6	2935 (54.0%)	974 (53.0%)	1961 (54.4%)	

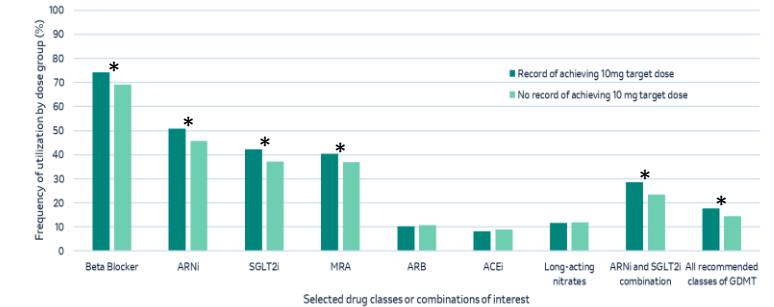
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Figure 2. Baseline frequency of selected comorbidities of interest



- The most utilized drug classes (Figure 3) of other GDMT included beta-blockers (71%), ARNi (47%), MRA (38%) and SGLT2i (39%)
- Frequency of combination therapy with multiple GDMT classes was low overall, with 25% of patients co-prescribed both SGLT2i and ARNi with vericiguat, and 16% of patients co-prescribed all GDMT drug classes (ACEi/ARB/ARNi + MRA + Beta blocker + SGLT2i) with vericiguat
- Although overall comorbidity burden and specific comorbidities of interest were similar between groups, utilization of the most prescribed GDMT classes was significantly higher among patients with a record of achieving target dose of vericiguat (P<0.05)

Figure 3. Frequency of comedication with vericiguat for selected drug classes



*Denotes statistically significant difference between groups.

Limitations

- We assumed patients who filled prescriptions of vericiguat took it as prescribed in this analysis
- The use of administrative open claims data did not allow for consideration of certain clinical and demographic characteristics and may underreport frequency for important variables of interest
- Patients' continued presence in the database depended on continuous insurance coverage during the study period, and there was no way to ascertain entry or exit from the database

Conclusions

- Patients receiving vericiguat were predominantly male, White, from the US South, on Medicare and had 6+ comorbidities; a quarter were co-prescribed both SGLT2i and ARNi, while fewer than one-fifth were on all recommended classes of GDMT
- About one-third of patients on vericiguat reached target dose and were more likely to be treated with multiple classes of GDMT
- These findings strengthen understanding of early vericiguat users, offering important insights to clinicians looking to optimize management of HFrEF patients

Disclosure

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