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Abstract 9861: Geographic Variation in Prescription of Heart Failure Guideline Directed Medical Therapies for United States Veterans is Prevalent Nationwide

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Abstract

Introduction: In patients with heart failure with reduced ejection fraction (HFrEF), use of guideline directed medical therapies (GDMT) reduces mortality. Whether there is geographic variation in GDMT prescribing is not well-characterized.

Hypothesis: We assessed the hypothesis that there is wide geographic variation nationally within the Veterans Affairs (VA) healthcare system for the receipt of GDMT.

Methods: We linked the primary residence address of a cohort of Veterans with HFrEF receiving care at VA facilities (n=178,856) to hospital referral regions (HRRs). Using VA and non-VA pharmacy data between July 1, 2020 and July 1, 2021, we defined receipt of GDMT. For each HRR, we calculated the percentage of eligible Veterans that were prescribed each class of GDMT and a composite GDMT z-score. Lastly, we constructed national choropleth maps to depict HRR geographic variation in composite z-scores and prescription of each class of GDMT.

Results: There was significant variation in individual GDMT class prescription and composite score across HRRs as shown in choropleth maps (*Figure*). Within HRRs, beta-blocker prescription was highest, with a median 80% of Veterans (interquartile range [IQR] 77.3% to 82.2%), afterload-reducing agents including angiotensin converting enzyme inhibitor / angiotensin receptor blocker / angiotensin receptor-neprilysin inhibitors (ARNI) 69.3% (IQR 66.4% to 72.1%), mineralocorticoid receptor antagonists (MRA) 29.2% (IQR 25.8% to 33.9%), sodium-glucose cotransporter 2 inhibitors (SGLT2I) 10.3% (IQR 7.7% to 12.8%), and ARNI 12.2% (IQR 8.6% to 15.3%). HRRs with the highest and lowest composite scores were often found in the same U.S. Census Regions.

Conclusions: In conclusion, wide geographic disparities are present for GDMT prescribing to Veterans across HRRs. Veteran receipt of ARNI, SGLT2I, and MRA is low nationwide. Targeted approaches may be necessary to improve GDMT prescription for Veterans in lower performing HRRs.

Composite GDMT Prescribing Z-Score by HRR

Composite GDMT Prescribing Z-Score Color Scale

Percentage of Veterans with HFrEF on Beta Blockade by HRR

Beta Blocker Percent Use by Hospital Referral Region

Percentage of Veterans with HFrEF on ACEI/ARB/ARNI by HRR

ACEI/ARB/ARNI Percent Use by Hospital Referral Region

Percentage of Veterans with HFrEF on SGLT2i by HRR

SGLT2i Percent Use by Hospital Referral Region

Percentage of Veterans with HFrEF on MRA by HRR

MRA Percent Use by Hospital Referral Region

Percentage of Veterans with HFrEF on ARNI by HRR

ARNI Percent Use by Hospital Referral Region