



US DEPARTMENT OF VETERANS AFFAIRS **OFFICE OF INSPECTOR GENERAL**

Office of Healthcare Inspections

VETERANS HEALTH ADMINISTRATION

Review of VHA's Management of Heart Failure with Reduced Ejection Fraction in Women Veterans



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Executive Summary

The VA Office of Inspector General (OIG) found that the Veterans Health Administration (VHA) lacked standardized processes to efficiently identify patients with heart failure with reduced ejection fraction (HFrEF). The OIG found that nearly all women veterans with asymptomatic HFrEF were prescribed guideline-directed medical therapy (GDMT) medications in alignment with the 2022 AHA/ACC/HFSA [American Heart Association/ American College of Cardiology/ Heart Failure Society of America] Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines or had a documented rationale for not being on the medication(s). For women veterans with symptomatic HFrEF, the OIG found that, while 78.5 percent received all four recommended GDMT drug classes, one in five patients lacked complete therapy and had no documented reason for the omission.

Scope and Objective

The OIG conducted a national review to determine if VHA's management of HFrEF in women veterans is consistent with AHA/ACC/HFSA clinical practice guidelines.¹ Specifically, the OIG reviewed the treatment of HFrEF as it relates to AHA/ACC/HFSA's GDMT in women veterans. The OIG reviewed the electronic health records (EHRs) of a representative sample of women veterans with a documented diagnosis of heart failure between October 1, 2023, through September 30, 2024, and identified 186 women veterans who met criteria for HFrEF. The review was initiated in August 2025 and concluded in February 2026.

Major Findings

Access to Specialty and Women's Health Care

The OIG found that 100 percent of women veterans with HFrEF were evaluated by a cardiologist for heart failure, consistent with AHA/ACC/HFSA clinical practice guidelines, which recommend inclusion of cardiology services to ensure optimization of GDMT.² In addition, 80 percent of women veterans with HFrEF were assigned to either a designated women's health

¹ P. A. Heidenreich et al., "2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines," *Circulation* volume 145, no.18 (2022) e895–e1032.
<https://www.ahajournals.org/doi/10.1161/CIR.0000000000001063>.

² Heidenreich et al., "2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines."

primary care provider or Women's Health clinic for their primary care, supporting access to clinicians trained in women's health and gender-specific care.³

Cardiovascular Disease Risk Factors and Coronary Artery Disease Evaluation

Effective management of cardiovascular disease (CVD) risk factors is linked to a reduced lifetime risk of heart failure and preservation of the heart structure and is critical for reducing hospitalizations. The prevalence of traditional and nontraditional risk factors for CVD is higher in women veterans than nonveteran women. During the review, the OIG identified a high incidence of traditional CVD risk factors, including high blood pressure and high cholesterol, and noted that depression was the most common nontraditional risk factor. The OIG found that nearly all (95 percent) women veterans with HFrEF were evaluated for coronary artery disease, the most common cause of heart failure, or had a documented reason for declining further assessment.

Identification and Monitoring of HFrEF

The OIG found that VHA lacks a standardized approach for identifying and assessing patients diagnosed with HFrEF. To complete an assessment of VHA's management of women veterans with HFrEF, the OIG conducted a robust EHR review. During the review, the OIG encountered several challenges including locating ejection fraction results, finding documentation to determine HFrEF staging, and assessing the prescribing of GDMT medications. Given the substantial reduction of mortality—more than 70 percent—when GDMT medication therapy is implemented as recommended, it is essential for VHA to be able to efficiently identify, continuously monitor, and determine if treatment aligns with AHA/ACC/HFSA clinical practice guidelines.

Guideline-Directed Medical Therapy Compliance

The OIG reviewed EHRs to determine if women veterans with HFrEF received GDMT medications consistent with AHA/ACC/HFSA clinical practice guidelines. Among asymptomatic women veterans with HFrEF, most received the two classes of guideline-directed medical therapy or had a documented reason why a medication class was not prescribed. Among symptomatic women veterans with HFrEF, 78.5 percent received all four recommended guideline-directed medication classes or had a documented rationale for not prescribing. Thus, approximately one in five (21.5 percent) of the symptomatic women veterans did not receive all four recommended medication classes and lacked documentation explaining the omission.

³ VHA 1330.01(7), *Health Care Services for Women Veterans*, February 15, 2017, amended May 14, 2023.

Impact on Veterans and Operations

Treatment using the combination of GDMT medications, when indicated, should be a priority given the proven clinical benefits of reduced hospitalization, prolonged life, and improved quality of life; GDMT medications have been shown to reduce mortality by over 70 percent in patients diagnosed with HFrEF. As such, it is essential for VHA to efficiently identify affected patients, continuously monitor their clinical status, and be able to determine if their treatment aligns with AHA/ACC/HFSA clinical practice guidelines.⁴

Currently, the process to identify women veterans with HFrEF and assess GDMT medication usage requires extensive EHR review. These challenges are exacerbated by the fact that VHA does not have a standardized process to efficiently identify patients with HFrEF and highlights an opportunity for VHA to develop a system for capturing diagnoses and supporting consistent, evidence-based care.

Key Recommendations

The OIG made three recommendations to the Under Secretary for Health related to the identification and assessment of patients with HFrEF diagnoses, ensuring compliance with GDMT medications for HFrEF treatment, and documenting clinical rationale when GDMT is not indicated.

The OIG will monitor implementation and focus its oversight efforts on the effectiveness and efficiencies of programs and services that improve the health and welfare of veterans and their families.

VA Comments

The Veterans Health Administration Under Secretary for Health concurred with the recommendations and provided acceptable action plans to strengthen identification and assessment practices, adherence to GDMT, and documentation of clinical decisions (see appendix B). The OIG will follow up on the planned actions until they are completed.



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⁴ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

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Abbreviations

ACC	American College of Cardiology
AHA	American Heart Association
CVD	cardiovascular disease
EHR	electronic health record
GDMT	guideline-directed medical therapy
HFrEF	heart failure with reduced ejection fraction
HFSA	Heart Failure Society of America
MRA	mineralocorticoid receptor antagonist
OIG	Office of Inspector General
RASI	renin-angiotensin system inhibitor
SGLT-2	sodium-glucose cotransporter 2 inhibitors
VHA	Veterans Health Administration



Introduction

The VA Office of Inspector General (OIG) initiated a national review to determine if Veterans Health Administration's (VHA's) management of heart failure with reduced ejection fraction (HFrEF) in women veterans is consistent with the 2022 AHA/ACC/HFSA [American Heart Association/ American College of Cardiology/ Heart Failure Society of America] Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.¹ Of note, VHA adopted these guidelines when developing *VHA Managing Heart Failure in Primary Care* guidance.² The OIG reviewed the treatment of HFrEF as it relates to AHA/ACC/HFSA's guideline-directed medical therapy (GDMT) in women veterans. The review was initiated in August 2025 and concluded in February 2026.³

Background

Cardiovascular disease (CVD) is the leading cause of death in both men and women in the United States.⁴ However, women with CVD have poorer outcomes in comparison to men and are often underdiagnosed and undertreated.⁵

Women veterans are the fastest growing demographic in the veteran population with numbers projected to reach 3.6 million over the next 25 years.⁶ In fiscal year 2025 (October 1, 2024,

¹ P. A. Heidenreich et al., "2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines," *Circulation* 145, no. 18 (2022) e895–e1032. <https://www.ahajournals.org/doi/10.1161/CIR.0000000000001063>.

² "Managing Heart Failure in Primary Care: A Quick Reference Guide (2022)," VHA PBM [Pharmacy Benefits Management] Academic Detailing Services, accessed May 14, 2026, <https://dvagov.sharepoint.com/sites/vhaacademicdetailing/Education%20Materials/Forms/GroupbyCampaign.aspx?id=%2Fsites%2Fvhaacademicdetailing%2FEducation%20Materials%2FHeart%20Failure%2FHeartFailure%5FProvider%5FQuickReferenceGuide%5FIB101162%2Epdf&parent=%2Fsites%2Fvhaacademicdetailing%2FEducation%20Materials%2FHeart%20Failure>. (This site is not publicly accessible.)

³ M. K. Mahowald et al., "Sex Disparities in Cardiovascular Disease," *Methodist DeBakey Cardiovascular Journal* 20, issue 2 (March 14, 2024): 107-119, <https://doi.org/10.14797/mdcvj.1328>.

⁴ Cleveland Clinic, "Cardiovascular Disease," accessed June 23, 2025, <https://my.clevelandclinic.org/health/diseases/21493-cardiovascular-disease>.

⁵ M. K. Mahowald et al., "Sex Disparities in Cardiovascular Disease."

⁶ Pristine Mei et al., "Cardiovascular Care in Women Veterans: An Updated Profile," *Current Cardiology Reports* 27, no. 93, (June 12, 2025), <https://doi.org/10.1007/s11886-025-02247-2>.

through September 30, 2025), over 700,000 women veterans used VHA health care services.⁷ VHA projects an 11 to 18 percent increase in the women veteran population by the year 2048.⁸

Military-specific risks such as depression and post-traumatic stress disorder have been related to higher mortality and CVD risks.⁹ Veteran status independently increases the risk of CVD, placing veterans at particularly high risk for developing the disease.¹⁰ Women veterans have higher rates of CVD than nonveteran women or male veterans with risks increasing with age starting as “early as 30 years.”¹¹ Despite improvements in diagnosing and treating heart disease, cardiac disease mortality rates among women veterans have risen since 2000.¹²

Heart Failure

Heart failure is a chronic, progressive condition that is associated with significant mortality, recurrent hospitalizations, and high morbidity.¹³ Causes of heart failure include coronary artery disease, a form of CVD, which changes the structure of the heart, lowering its ability to pump enough blood to meet the demands of the body.¹⁴ As a result, the symptoms of heart failure often manifest as shortness of breath, chest pain, fluid retention, weight gain, or generalized fatigue.¹⁵

⁷ “VHA Reports and Measures Portal (RAMP),” VHA Support Service Center (VSSC), accessed February 27, 2026, <http://vharamp.vssc.med.va.gov/Pages/results.aspx?k=Pocket%20Card>. (This site is not publicly accessible.)

⁸ Carolyn M. Batie, Robert N. Axon, and Charlene Pope, “Challenges to Cardiovascular Health Among Female U.S. Veterans and Future Implications: A Scoping Review,” *Military Medicine* 190, no. 5-6 (May/June 2025): e961-e968, <https://doi.org/10.1093/milmed/usaf005>.

⁹ Pristine Mei et al, “Cardiovascular Care in Women Veterans: An Updated Profile.”

¹⁰ Mei et al, “Cardiovascular Care in Women Veterans: An Updated Profile.”; Batie et al, “Challenges to Cardiovascular Health Among Female U.S. Veterans and Future Implications: A Scoping Review.”; S. Assari, “Veterans and Risk of Heart Disease in the United States: A Cohort with 20 Years of Follow Up,” *International Journal of Preventive Medicine* 5, no. 6 (June 2014): 703-709. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4085922/pdf/IJPVM-5-703.pdf>

¹¹ Pristine Mei et al, “Cardiovascular Care in Women Veterans: An Updated Profile.”

¹² Mahowald et al, “Sex Disparities in Cardiovascular Disease.”; R. Ebrahimi et al, “Trends in Cardiovascular Disease Mortality in US Women Veterans vs Civilians,” *JAMA Network Open* 6, no.10 (October 30, 2023): e2340242 [doi: 10.1001/jamanetworkopen.2023.40242](https://doi.org/10.1001/jamanetworkopen.2023.40242).

¹³ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

¹⁴ “What is Cardiovascular Disease?” American Heart Association, accessed June 23, 2025, <https://www.heart.org/en/health-topics/consumer-healthcare/what-is-cardiovascular-disease>; “About Women and Heart Disease,” Centers for Disease Control and Prevention, accessed February 6, 2026, <https://www.cdc.gov/heart-disease/about/women-and-heart-disease.html>; NIH National Heart, Lung, and Blood Institute, *Know the Difference Cardiovascular Disease, Heart Disease, Coronary Heart Disease* (fact sheet), October 2021, accessed April 22, 2026, <https://www.nhlbi.nih.gov/resources/know-differences-cardiovascular-disease-heart-disease-coronary-heart-disease>.

¹⁵ “What is congestive heart failure?” Cleveland Clinic, accessed February 12, 2026, <https://my.clevelandclinic.org/health/diseases/17069-heart-failure-understanding-heart-failure>.

The AHA/ACC/HFSA clinical practice guidelines recognize heart failure as a continuum from being at-risk for heart failure to having severe symptoms.¹⁶

Ejection fraction is a quantitative measurement, in percentage, of the heart's ability to pump blood to the rest of the body.¹⁷ An ejection fraction of less than or equal to 40 percent is considered HFrEF. A patient's heart failure can further be categorized into different stages. As each stage represents the severity of heart failure, treating providers should include therapeutic options and interventions to limit progression to later stages of heart failure. The AHA delineates the development and progression of heart failure into four stages (see figure 1) with HFrEF being staged at B or higher, depending on the symptoms.¹⁸

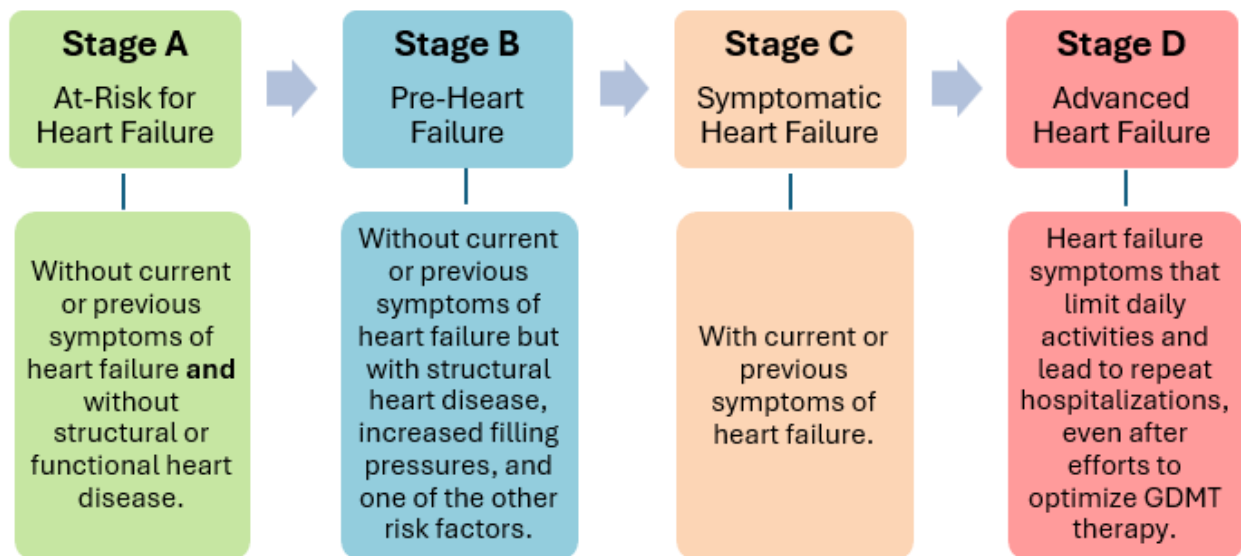


Figure 1. AHA/ACC stages of heart failure.

Source: Adapted from 2022 AHA/ACC/HFSA Guidelines for the Management of Heart Failure.

Guideline-Directed Medical Therapy

In 2022, AHA/ACC/HFSA updated their clinical practice guidelines for the treatment of heart failure supporting an approach of GDMT to improve quality of life, reduce hospitalizations, and lower morbidity and mortality. GDMT involves clinical evaluation, diagnostic testing, drug

¹⁶ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

¹⁷ “Ejection Fraction Heart Failure Measurement,” American Heart Association, accessed December 2, 2024, <https://www.heart.org/en/health-topics/heart-failure/diagnosing-heart-failure/ejection-fraction-heart-failure-measurement>.

¹⁸ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

therapies, and procedural interventions and treatments. GDMT recommendations are made for each stage with goals to prevent or slow progression to the next stage.¹⁹

The GDMT medication regimen for heart failure primarily focuses on four main drug classes, including renin-angiotensin system inhibitors (RASi), evidence-based beta-blockers, sodium-glucose cotransporter 2 inhibitors (SGLT-2), and mineralocorticoid receptor antagonists (MRA).²⁰ When used together, these medications have been well-documented to show clinical benefits that include reducing all-cause mortality, cardiovascular death, and heart failure-related hospitalizations. Additionally, these medications have been shown to improve quality of life.²¹

Specific GDMT medication regimens vary as the stages of heart failure advance. HFrEF patients with stage B have known structural heart disease but do not have symptoms. For stage B patients, AHA/ACC/HFSA guidelines recommend medication therapy with an evidence-based beta blocker and a RASi.²² Heart failure symptoms often represent manifestations of advancement of disease. Patients with heart failure symptoms with evidence of abnormal heart function are classified in either stage C or D. Stage C or D management focuses on relief of symptoms; such as shortness of breath, edema, and fatigue; while reducing admissions and lowering morbidity and mortality.²³ As such, AHA/ACC/HFSA clinical practice guidelines recommend that GDMT for this specific patient population include a four-drug regimen, including one from each of the following classes: RASi, beta-blockers, SGLT-2, and MRA. The combination of these GDMT drug therapies, when indicated, should be a priority given the proven clinical benefits of reduced hospitalization, prolonged life, and improved quality of life, with an all-cause mortality 73 percent lower as compared to no drug therapy.²⁴

Scope and Methodology

The OIG initiated a national review on August 18, 2025, to assess treatment of HFrEF in women veterans. The OIG reviewed the *AHA/ACC/HFSA Guideline for the Management of Heart*

¹⁹ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

²⁰ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

²¹ Thomas M. Maddox et al., “2024 ACC Expert Consensus Decision Pathway for Treatment of Heart Failure With Reduced Ejection Fraction: A Report of the American College of Cardiology Solution Set Oversight Committee,” *Journal of the American College of Cardiology* 83, issue 15 (April 2024): 1444-1488, <https://doi.org/10.1016/j.jacc.2023.12.024>; H. Patolia et al., “Implementing Guideline-Directed Medical Therapy for Heart Failure: JACC Focus Seminar 1/3,” *Journal of the American College of Cardiology* 82, issue 6 (August 8, 2023): 529-543, <https://doi.org/10.1016/j.jacc.2023.03.430>.

²² Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

²³ “What is congestive heart failure?” Cleveland Clinic.

²⁴ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines, applicable VHA guidance documents related to the management of heart failure, and other relevant literature.²⁵

The OIG identified a study population of 2,964 women veterans who, from October 1, 2023, through September 30, 2024, had a documented diagnosis of heart failure (based on International Classification of Diseases, 10th revision, (ICD-10) codes in the I50.2 and I50.4 series), two or more inpatient or outpatient encounters within three days of each other, and did not have documented diagnoses of hospice, end-stage renal disease, or dialysis.²⁶ The OIG acknowledges that coding accuracy is limited to and dependent on providers selecting the correct diagnosis code and entering it into electronic health records (EHRs) timely. Variability in provider coding practices can therefore affect accuracy of the data. To evaluate the care provided by VHA, the OIG reviewed the EHRs of a representative sample of 350 women veterans from the study population. From the representative sample, the OIG excluded 164 patients who did not have a documented history of an ejection fraction less than or equal to 40 percent.

In the absence of current VA or VHA policy, the OIG considered previous guidance to be in effect until superseded by an updated or recertified directive, handbook, or other policy document on the same or similar issue(s).

Oversight authority to review the programs and operations of VA medical facilities is authorized by the Inspector General Act of 1978, as amended, 5 USC §§ 401–424. The OIG reviews available evidence within a specified scope and methodology and makes recommendations to VA leaders, if warranted. Findings and recommendations do not define a standard of care or establish legal liability.

The inspection team's analyses relied on inspectors identifying significant information from evidence based on professional judgment, as supported by the Council of Inspectors General on Integrity and Efficiency's standards.²⁷

During the preparation of this report, the inspection team used peer-reviewed standardized, structured, and evaluated prompts in Copilot Chat (Microsoft) to review inspection data such as interview transcripts, documents, questionnaire responses, and physical observations. After using this tool, the team confirmed fidelity of the generated output to the source material, edited the report, and take full responsibility for the content of the publication. All references are for original source material, not artificial intelligence (AI)-generated content. Office of Healthcare

²⁵ Heidenreich et al., "2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines."

²⁶ "ICD-10-CM Index to Diseases and Injuries," Centers for Medicare & Medicaid Services, accessed April 6, 2026, <https://www.cms.gov/medicare/coding-billing/icd-10-codes>.

²⁷ Council of the Inspectors General on Integrity and Efficiency, *Quality Standards for Inspection and Evaluation*, December 2020.

Inspections teams do not use AI as the principal basis for decision-making or actions; therefore, the usage does not meet the definition of high-impact as laid out by Section 4(a) of the Office of Management and Budget (OMB) Memorandum M-25-21, “*Accelerating Federal Use of AI through Innovation, Governance, and Public Trust*.”²⁸

The OIG conducted the review in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

Review Results

1. Women Veterans with HFrEF

To assess the treatment of women veterans with heart failure with reduced ejection fraction (HFrEF), the OIG reviewed the EHRs of a representative sample of 186 women veterans with HFrEF, after excluding those without HFrEF. The women veterans identified with HFrEF had an average age of 64 years as of October 1, 2023. The OIG also found that 100 percent of the women veterans in the sample were evaluated by a cardiologist for heart failure, consistent with the 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. The guidelines recommend the management of HFrEF include cardiology services to ensure optimization of guideline-directed medical therapy (GDMT), due to the complexity of the disease.²⁹

To determine if women veterans with HFrEF were offered comprehensive and gender-specific care consistent with VHA Directive 1330.01(7), *Health Care Services for Women Veterans*, the OIG reviewed EHRs to determine if the patients were assigned to a designated women’s health primary care provider or Women’s Health clinic. Comprehensive primary care for women veterans is provided by clinicians who are specifically trained and have experience in the care of women veterans.³⁰ The OIG found that 80 percent of the women veterans with HFrEF were assigned to a designated women’s health primary care provider or clinic.

Cardiovascular Disease Risk Factors in the Study Population

The AHA/ACC/HFSA clinical practice guidelines establish that effective management of risk factors is linked to a reduced lifetime risk of heart failure and preservation of the heart

²⁸ Executive Office of the President, Office of Management and Budget, “Accelerating Federal Use of AI through Innovation, Governance, and Public Trust,” Memorandum for the Heads of Executive Departments and Agencies, M-21-21: § 4(a), April 3, 2025.

²⁹ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

³⁰ VHA 1330.01(7), *Health Care Services for Women Veterans*, February 15, 2017, amended May 14, 2023.

structure.³¹ The prevalence of traditional and nontraditional risk factors for CVD is higher in women veterans than nonveteran women.³² To understand the clinical complexity of the women veterans included in this review, OIG analyzed the percentage of associated traditional and non-traditional risk factors.

Traditional CVD risk factors include tobacco use, obesity, hyperlipidemia (high cholesterol), hypertension, or high blood pressure, and diabetes mellitus.³³ Nontraditional CVD risk factors include depression, post-traumatic stress disorder, military sexual trauma, and homelessness.³⁴ While adherence to the guideline-directed medical therapy (GDMT) medication regimen improves outcomes after diagnosis of HFrEF, preventing the development and progression of the disease through risk factor management is equally critical.³⁵ Effective management of risk factors not only reduces the incidence of heart failure in at-risk patients, but also slows disease progression, decreases hospitalization, improves survival, and enhances quality of life in HFrEF patients.

The OIG found that women veterans with HFrEF had several traditional and nontraditional risk factors. Among the traditional risk factors, high blood pressure and high cholesterol were the most prevalent. Of the nontraditional risk factors, depression was most common. Figure 2 shows the distribution of traditional and nontraditional risk factors in women veterans with HFrEF.

³¹ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

³² Mei et al., “Cardiovascular Care in Women Veterans: An Updated Profile.”

³³ Mahowald et al., “Sex Disparities in Cardiovascular Disease.”

³⁴ Mahowald et al., “Sex Disparities in Cardiovascular Disease.”; Batie, Axon, and Pope, “Challenges to Cardiovascular Health Among Female U.S. Veterans and Future Implications: A Scoping Review.”; Mei et al., “Cardiovascular Care in Women Veterans: An Updated Profile.”

³⁵ Michael M. Hammond, Ian K. Everitt, and Sadiya S. Khan, “New strategies and therapies for the prevention of heart failure in high-risk patients,” *Clinical Cardiology* 45, (April 19, 2022): S13-S25, <https://doi.org/10.1002/clc.23839>.

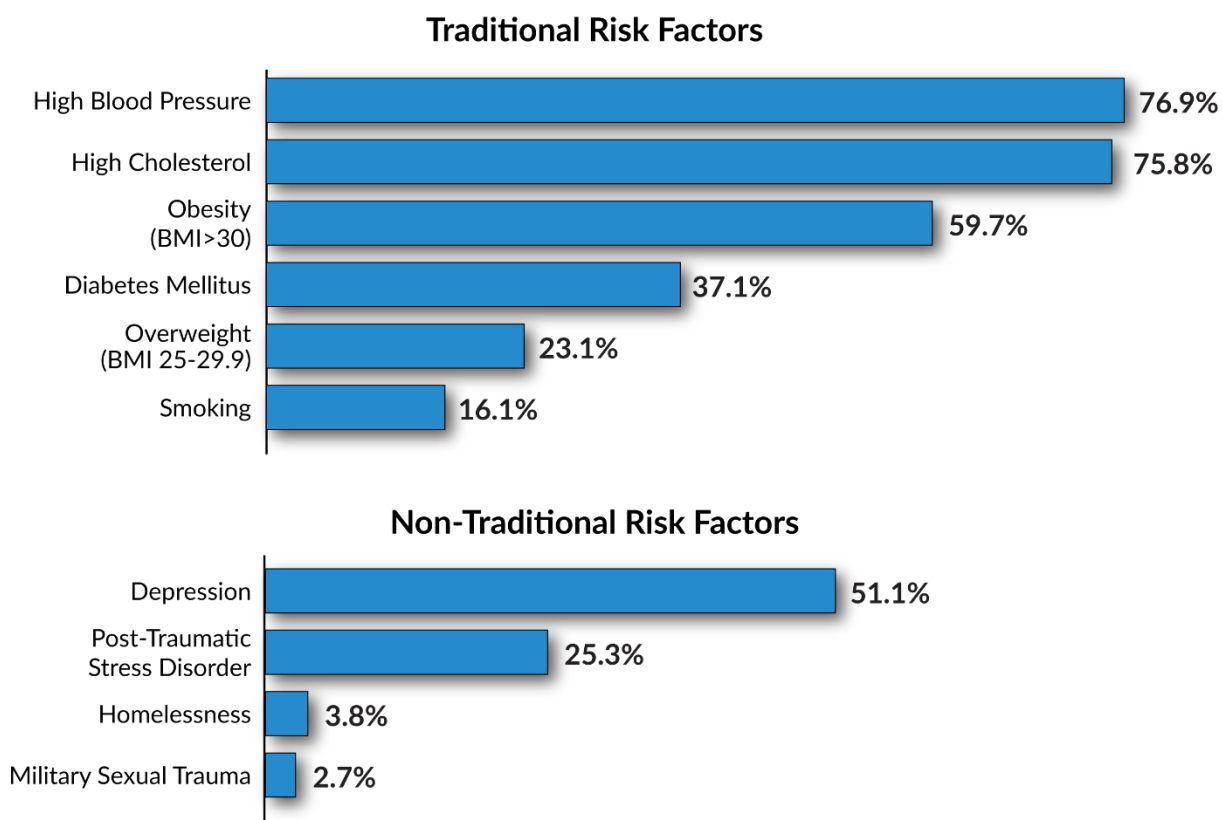


Figure 2. Traditional and nontraditional risk factors for women veterans with HFrEF.
Source: OIG analysis of the EHR review.

Coronary Artery Disease Evaluations

Coronary artery disease is a common cause of heart failure.³⁶ Evaluating coronary artery disease in patients with heart failure through appropriate testing, such as coronary angiography, is necessary to identify causes that may be reversible.³⁷ Studies indicate that women veterans undergo coronary angiography half as often as male veterans, despite reporting more chest

³⁶ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

³⁷ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”; “Coronary angiogram,” Mayo Clinic, accessed April 22, 2026, <https://www.mayoclinic.org/tests-procedures/coronary-angiogram/about>.

pain.³⁸ Additionally, GDMT for coronary artery disease is delayed up to one year after diagnosis as compared to male veterans.³⁹

To determine if women veterans with HFrEF were evaluated for coronary artery disease, the OIG reviewed EHR documentation for evidence of invasive or noninvasive cardiac studies including coronary angiography, stress imaging with echocardiography, and nuclear scans. The OIG found that the majority (95 percent) of women veterans were evaluated for coronary artery disease or had a documented reason for not being evaluated. Only 5 percent of women veterans had no documented evidence of an evaluation for coronary artery disease or decision to decline.

2. Identification and Assessment of HFrEF

To complete an assessment of VHA's management of women veterans with HFrEF, the OIG conducted a robust EHR review to identify and verify patients with a diagnosis of HFrEF, determine the HFrEF stage, and evaluate whether GDMT medications were prescribed or had a documented reason for not being prescribed. The challenges with identifying and assessing veterans with HFrEF were reinforced when VHA clinical leaders shared that there is no standardized process to efficiently identify patients with HFrEF. Specifically, VHA clinical leaders expressed difficulty with finding ejection fraction readings in the EHR. While conducting the EHR review, the OIG also encountered challenges finding documentation of ejection fraction readings, requiring an extensive and time-consuming review. Additional complexity was added to the EHR review due to challenges with finding documentation to determine HFrEF staging and assessment of GDMT medications.

While ICD-10 codes provide a useful starting point for identifying populations with heart failure, they are not specific to HFrEF and do not define the symptoms and stage of HFrEF.⁴⁰ To confirm a diagnosis of HFrEF, the OIG reviewed the EHR for documentation of an ejection fraction less than or equal to 40 percent. In addition to clinical progress notes, the EHR review included imaging results, scanned reports, and any available community care documentation. The OIG found that 53 percent of the representative sample of women veterans with a diagnosis of heart failure had documentation that met the definition of HFrEF. The OIG then looked for documentation of heart failure-related symptoms in the EHR to assess for HFrEF stage. Finally, to assess whether GDMT was implemented, if indicated, the OIG reviewed medication lists for prescribed GDMT medications for each patient. If there was no documented evidence of a

³⁸ Han et al, "Cardiovascular Care in Women Veterans: A Call to Action," *Circulation* 139, no. 8, (February 19, 2019): 1102-1109 <https://doi.org/10.1161/CIRCULATIONAHA.118.037748>.

³⁹ Dhruva et al, "Gender Differences in Guideline-Directed Medical Therapy for Cardiovascular Disease Among Young Veterans," *Journal of General Internal Medicine* 37, (August 30, 2022): 806-815. <https://doi.org/10.1007/s11606-022-07595-1>.

⁴⁰ Goyal et al, "Performance of Electronic Health Record Diagnosis Codes for Ambulatory Heart Failure Encounters," *Journal of Cardiac Failure* 26, issue 12, (December 2020): 1060-1066, <https://doi.org/10.1016/j.cardfail.2020.07.015>.

recommended drug class being prescribed, the OIG looked for documentation of the reason why the patient was not receiving that class of medication. Details related to staging and GDMT medication assessments are discussed in section three of this report.

The OIG determined that VHA lacks a standardized process to efficiently identify and assess patients with HFrEF. Treatment using the combination of GDMT medications has been shown to significantly reduce mortality by over 70 percent in patients diagnosed with HFrEF; as such, it is essential for VHA to efficiently identify affected patients, continuously monitor their clinical status, and be able to determine if their treatment aligns with AHA/ACC/HFSA clinical practice guidelines.⁴¹ Assessing the implementation of GDMT for veterans with HFrEF could provide VHA valuable information related to GDMT implementation goals and whether additional measures should be incorporated to improve VHA's use of GDMT.

3. Guideline-Directed Medical Therapy Medications

The *2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines* establish that specific guideline-directed medical therapy (GDMT) medications provide clinical benefits for HFrEF patients. For HFrEF stage B patients, dual therapy with an evidenced based beta blocker and a renin-angiotensin system inhibitor (RASi) has been shown to slow disease progression. Whereas in HFrEF stage C or D patients, GDMT with four main drug classes [evidence-based beta blocker, RASi, mineralocorticoid receptor antagonists (MRA), sodium-glucose cotransporter 2 inhibitors (SGLT-2)] is recommended to reduce hospitalization, all-cause mortality, and morbidity.⁴²

HFrEF Stage B

The OIG found that 8 percent of women veterans with a diagnosis of HFrEF were asymptomatic—having no symptoms—and therefore considered stage B. Among the women veterans with HFrEF stage B, the OIG determined that most (92.9 percent) of them were prescribed GDMT medications in alignment with AHA/ACC/HFSA clinical practice guidelines. The majority were either prescribed an evidence-based beta blocker and a RASi medication or had a documented rationale for not being on one medication or the other. Figure 3 summarizes the results of VHA's compliance with GDMT medications for women veterans with HFrEF stage B.

⁴¹ Heidenreich et al., "2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines."

⁴² Heidenreich et al., "2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines." H. Patolia et al., "Implementing Guideline-Directed Medical Therapy for Heart Failure: JACC Focus Seminar 1/3."

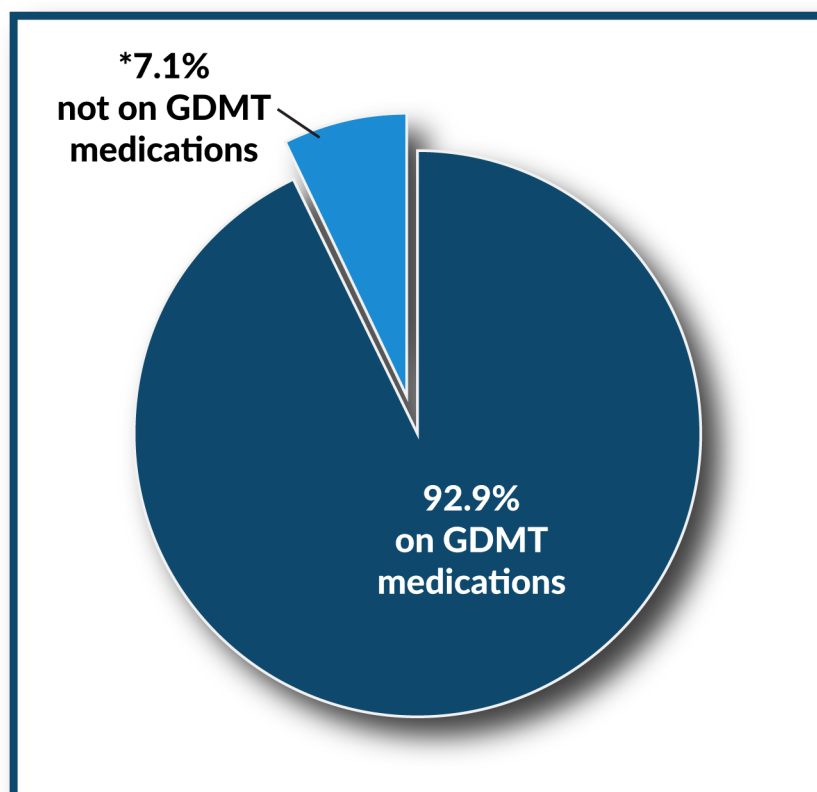


Figure 3. Women veterans with HFrEF stage B receiving GDMT medications consistent with AHA/ACC/HFSA clinical practice guidelines.

Source: OIG analysis of the EHR review.

Note: Not on GDMT: 7.1% (95% CI: 0–22.6). On GDMT: 92.9% (95% CI: 77.4–100).

*Not on GDMT medications and did not have a documented reason for not being on a specific drug class.

HFrEF Stage C or D

The OIG found that 92 percent of the women veterans diagnosed with HFrEF had documented evidence of heart failure symptoms and were therefore considered stage C or D. Among the women veterans in HFrEF stages C or D, the OIG determined that 78.5 percent were prescribed GDMT medications, or had a documented rationale for not being on one medication or the other, in alignment with AHA/ACC/HFSA clinical practice guidelines (see [appendix A](#)).⁴³ The OIG found that 21.5 percent were not prescribed all four evidence-based medication classes (beta blocker, RASI, SGLT-2, and MRA) and did not have a documented reason for not being on a

⁴³ Underlined terms are hyperlinks to another section of the report. To return to point of origin, press and hold the “alt” and “left arrow” keys together.

specific drug class. Figure 4 summarizes the results of VHA's compliance with GDMT medications for patients with HFrEF stages C or D.

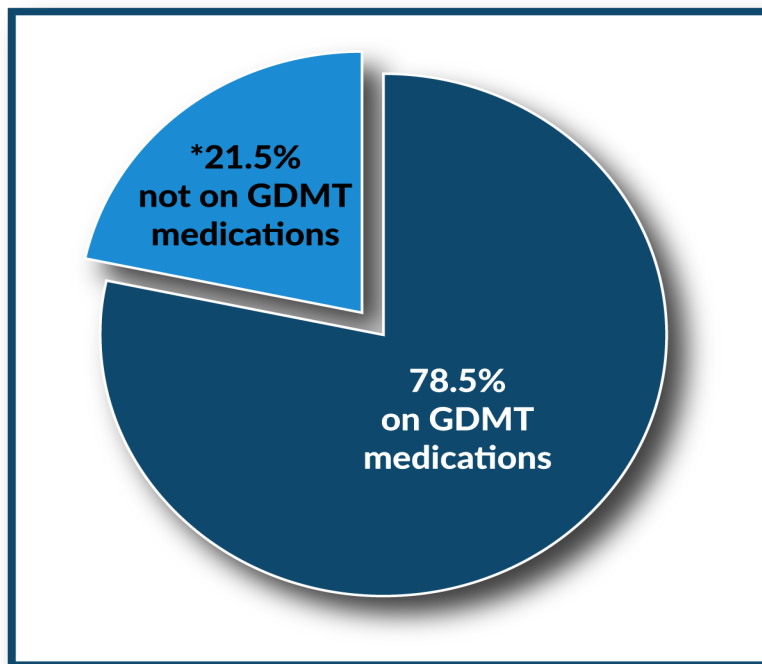


Figure 4. Women veterans with HFrEF stage C or D receiving GDMT medications consistent with AHA/ACC/HFSA clinical practice guidelines.

Source: OIG analysis of the EHR review.

Note: Not on GDMT: 21.5% (95% CI: 15.3–27.7). On GDMT: 78.5% (95% CI: 72.3–84.7).

*Not on GDMT medications and did not have a documented reason for not being on a specific drug class.

Of the four recommended classes, RASI medications were prescribed the most consistently or had a documented rationale for not being prescribed. MRAs were found to be least consistently prescribed, without a documented rationale for not prescribing. Figure 5 displays the proportion of women veterans who were prescribed, or had a documented reason for not prescribing, each medication within the GDMT drug classes.

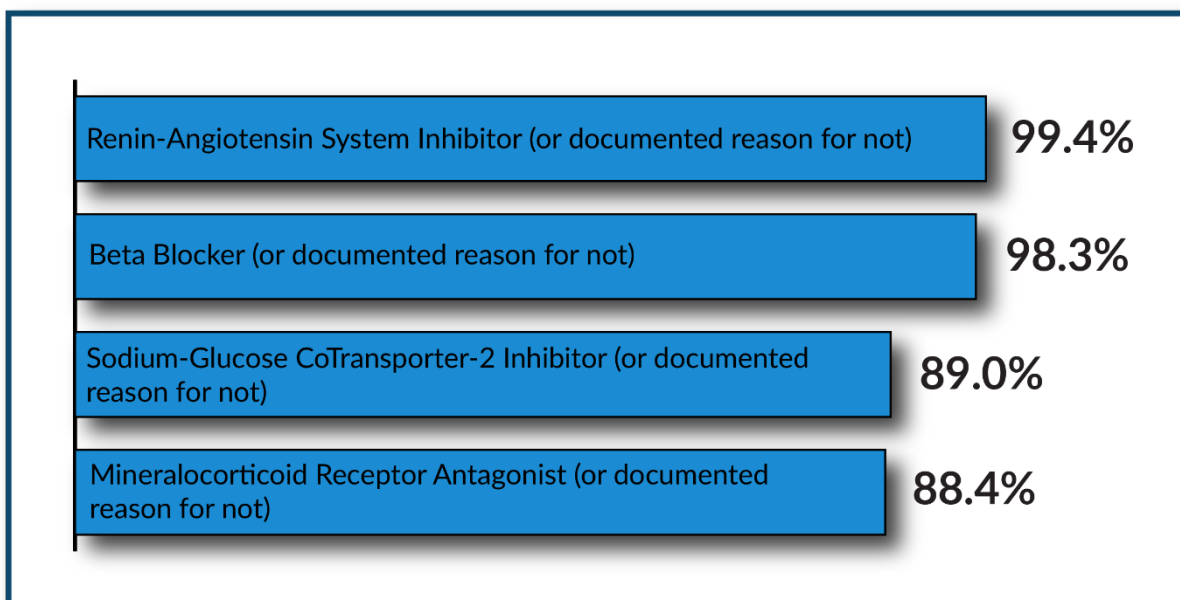


Figure 5. GDMT medications prescribed for women veterans with HFrEF stage C or D.

Source: OIG analysis of the EHR review.

Note: RASI (95% CI: 98.3–100), BB (95% CI: 96.3–100), SGLT-2 (95% CI: 84.2–93.7), MRA (95% CI: 83.5–93.2).

Ensuring adherence to GDMT medication recommendations, in accordance with AHA/ACC/HFSA clinical practice guidelines, should be a priority given the proven clinical benefits of reduced hospitalization, prolonged life, and improved quality of life in patients with HFrEF.⁴⁴ When GDMT-related medication is not clinically appropriate or contraindicated, documentation of the rationale should be included in the EHR.

Conclusion

The OIG reviewed the EHRs of a representative sample of women veterans and found that 100 percent of the women veterans with HFrEF were evaluated by a cardiologist for heart failure, consistent with the 2022 AHA/ACC/HFSA [American Heart Association/ American College of Cardiology/ Heart Failure Society of America] *Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines*. The OIG also identified the most common traditional risk factors to be high blood pressure and high cholesterol and the most common nontraditional cardiovascular risk factor to be depression and noted that nearly all patients were evaluated for coronary artery disease or had declined evaluation.

⁴⁴ Heidenreich et al., “2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines.”

The OIG found that identifying women veterans with heart failure with reduced ejection fraction (HFrEF) and assessing guideline-directed medical therapy (GDMT) medication usage required extensive EHR review. The challenges encountered with the identification and assessment of HFrEF were reinforced when VHA clinical leaders shared that there is no standardized process to efficiently identify patients with HFrEF and highlights an opportunity for VHA to develop a system for capturing diagnoses and supporting consistent, evidence-based care.

The OIG determined that nearly all women veterans in HFrEF stage B were prescribed GDMT medications in alignment with the 2022 *AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines* or had a documented rationale for not being on one medication or the other. The OIG found that, while 78.5 percent of HFrEF patients in stages C or D received all four recommended GDMT drug classes, one in five patients lacked complete therapy and had no documented reason for the omission.

The OIG is aware of VA's transformation in VHA's management structure. The OIG will monitor implementation and focus its oversight efforts on the effectiveness and efficiencies of programs and services that improve the health and welfare of veterans and their families.

Recommendations 1–3

1. The Under Secretary for Health develops a process to identify patients with a diagnosis of heart failure with reduced ejection fraction and implements an action plan that ensures monitoring of compliance with evidence-based care.
2. The Under Secretary for Health reviews Veterans Health Administration's compliance with American Heart Association/American College of Cardiology/Heart Failure Society of America guideline-directed medical therapy medications for the treatment of heart failure with reduced ejection fraction (stages C or D) in women veterans and implements an action plan to ensure compliance.
3. The Under Secretary for Health ensures women veterans with a diagnosis of heart failure with reduced ejection fraction who are not receiving guideline-directed medical therapy medications have a documented rationale for the exception and implements an action plan to ensure compliance.

Appendix A: Specific GDMT Medications Prescribed to Women Veterans with HFrEF Stage C or D

As part of the electronic health record (EHR) review, the OIG identified specific guideline-directed medical therapy (GDMT) medications that were prescribed for heart failure with reduced ejection fraction (HFrEF) patients in stages C or D. Figure 6 provides a distribution of specific medications prescribed within each respective drug class.

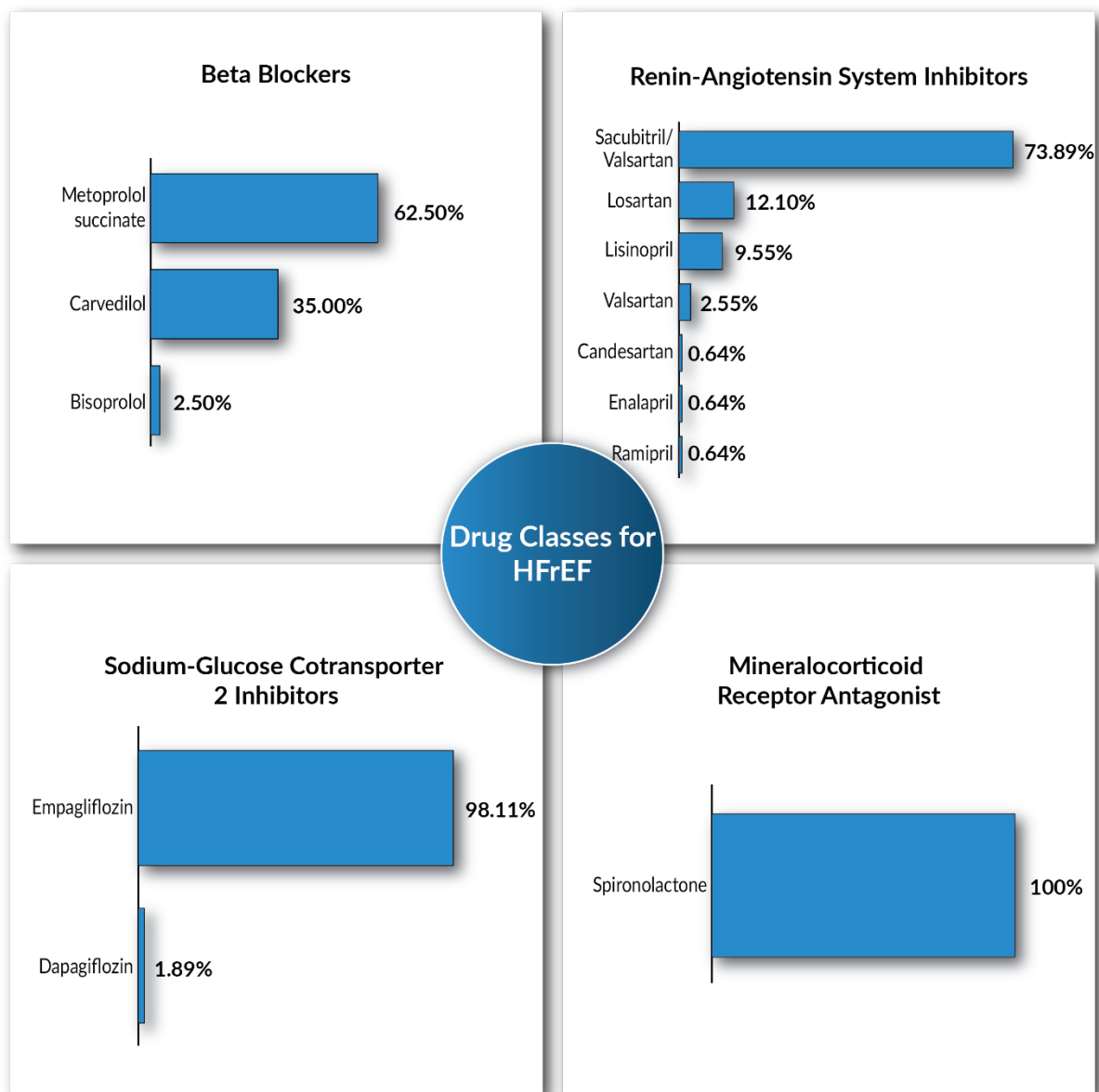


Figure A.1. Distribution of GDMT medications prescribed for women veterans with HFrEF stages C or D.

Source: OIG analysis of EHR review.

Appendix B: Office of the Under Secretary for Health Memorandum

Department of Veterans Affairs Memorandum

Date: July 29, 2026

From: Office of the Under Secretary for Health (10)

Subj: Healthcare Review—Review of VHA's Management of Heart Failure with Reduced Ejection Fraction in Women Veterans (VIEWS 14921483).

To: Assistant Inspector General for Healthcare Inspections (54)

1. Thank you for the opportunity to review and comment on the OIG's draft report on Review of VHA's Management of Heart Failure with Reduced Ejection Fraction in Women Veterans. Attached is the Veterans Health Administration's (VHA) action plan.
2. VHA greatly values the OIG's assistance in ensuring that all stakeholders are unified in supporting VHA's vision of providing all Veterans with access to the highest quality care. This report reflects the outstanding care that women Veterans with heart failure with reduced ejection fraction are receiving in VHA. The findings indicating that 100% of the patients surveyed had been seen by a cardiologist, and 78.5% received all four recommended guideline directed medical therapy indicate VHA's commitment to women Veterans.
3. Comments regarding the contents of this memorandum may be directed to the GAO OIG Accountability Liaison Office.

(Original signed by:)

John Figueroa
Acting Under Secretary for Health

[OIG comment: The OIG received the above memorandum from VHA on July 30, 2026.]

Office of the Under Secretary for Health Response

Recommendation 1

The Under Secretary for Health develops a process to identify patients with a diagnosis of heart failure with reduced ejection fraction and implements an action plan that ensures monitoring of compliance with evidence-based care.

☒ Concur

☐ Nonconcur

Target date for completion: September 2026

Under Secretary for Health Comments

Veterans Health Administration (VHA) prioritizes heart health for women in policy and practice. The VHA Pharmacy Benefits Management Academic Detailing Heart Failure Dashboard is established as a national dashboard to identify Veterans with a diagnosis of heart failure at any site of care. This dashboard is designed to identify opportunities to engage patients treated for heart failure post-discharge, improve utilization of cardiology specialty care, and optimize long-term guideline-directed medication therapy for heart failure. The dashboard may be utilized by VHA clinicians and medical staff to identify patient-level data, including biological sex, heart failure diagnosis, and medications.

The VHA Office of Women's Health, in collaboration with the National Cardiology Program Office, will issue a memorandum requiring Chiefs of Staff to ensure that providers utilize the Heart Failure Dashboard to identify women Veterans with heart failure with reduced ejection fraction.

Recommendation 2

The Under Secretary for Health reviews Veterans Health Administration's compliance with American Heart Association/American College of Cardiology/Heart Failure Society of America guideline-directed medical therapy medications for the treatment of heart failure with reduced ejection fraction (stages C or D) in women veterans and implements an action plan to ensure compliance.

☒ Concur

☐ Nonconcur

Target date for completion: March 2027

Under Secretary for Health Comments

The VHA Office of Women's Health, in collaboration with the National Cardiology Program Office, will issue a memo requiring Chiefs of Staff to ensure that providers utilize the Heart Failure Dashboard to identify women Veterans with heart failure with reduced ejection fraction and review compliance with guideline directed therapy. Facility rates of compliance with guideline directed therapy will be monitored locally, and facilities with greater than 25% below the national average must report biannually to Office of Women's Health and National Cardiology Program Office.

Recommendation 3

The Under Secretary for Health ensures women veterans with a diagnosis of heart failure with reduced ejection fraction, who are not receiving guideline-directed medical therapy medications, have a documented rationale for the exception and implements an action plan to ensure compliance.

☒ Concur

☐ Nonconcur

Target date for completion: September 2027

Under Secretary for Health Comments

VHA concurs that documenting a rationale for the exception in the electronic health record, such as in a progress note or, when appropriate, as an allergy or adverse reaction documentation, is best practice. Office of Women's Health [OWH], in collaboration with the National Cardiology Program [NCP], will provide a training update to women's health providers on guideline directed therapy for heart failure. OWH and NCP will require facilities to utilize the VHA Pharmacy Benefits Management Academic Detailing Heart Failure Dashboard to identify women Veteran patients not receiving guideline directed therapy. Each facility will do, at least annually, a manual chart review on a sample of charts (range 3-5 charts depending on facility population) to ensure compliance with documentation of reasons for the exception.

OIG Contact and Staff Acknowledgments

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