



Background

“Life expectancy gaps between rural and urban areas are increasing. Similar patterns have been seen for CVD and cardiovascular mortality, with a 40% higher prevalence of heart disease among rural residents.”¹ Beaufort Memorial Hospital (BMH), located in coastal Beaufort, South Carolina, is a 169-bed acute care hospital serving rural Beaufort County. BMH discharges just under 8000 patients annually, and of those, ~35% are patients with a primary or secondary diagnosis of heart failure. The 35+ age-adjusted cardiovascular/stroke death rate per 100,000 for Beaufort County is 239.9, which is lower than the South Carolina median of 395/1000². Over the past 2 years, BMH has prioritized improving care coordination for patients with a primary diagnosis of heart failure, specifically increasing the number of patients receiving quadruple therapy at /before discharge. In June 2023, BMH enrolled in Get With The Guidelines®-Heart Failure (GWTG-HF) via the American Heart Association’s Rural Health Care Outcomes Accelerator program, which offers supplemental educational and quality improvement resources to support improving the rate of guideline-directed medical therapy and decreasing readmission rates for heart failure patients.

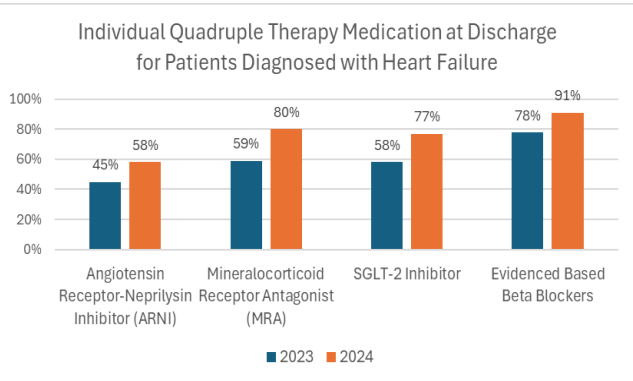
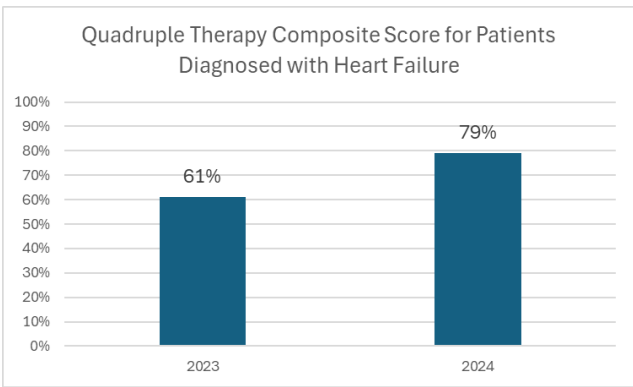
Objectives

- Collect standardized data on all admitted patients with a primary diagnosis of heart failure using GWTG-HF.
- Monitor quadruple therapy medication at discharge compliance.
- Expand the multidisciplinary team and improve care transition coordination.
- Reduce readmission rates of patients with a primary diagnosis of heart failure.

Methods

In June 2023, BMH enrolled in GWTG-HF and began abstracting data for patients with a primary diagnosis of Heart Failure. A multidisciplinary team of nurses, pharmacists, hospitalists, and cardiologists was formed. This team identified the goal of decreasing the overall heart failure (HF) readmission rate which was 32% in 2023. Understanding the cumulative effect of quadruple medical therapy shows an estimated 73% relative reduction in all-cause mortality over two years³, the group identified that improving the consistency of assessing heart failure patients with reduced ejection fraction (HFrEF) for appropriate quadruple medication management prior to and at discharge was needed.

GWTG-HF Data: 2023 Compared to 2024⁴



30-Day Heart Failure Readmission Rate 2023 ⁵	30-Day Heart Failure Readmission Rate 2024 ⁵
32%	18%

Disclaimer: The authors identified above are part of the Rural Health Care Outcomes Accelerator Program and Beaufort Memorial Hospital. This content reflects their own independent analysis and does not represent findings from the American Heart Association’s Get With The Guidelines® national program.

Cardiology engagement was amplified by the identification of a Physician Champion, through more purposeful interactions with team members during meetings and at the point of clinical care and by providing consistent guidance on demand. The multidisciplinary team developed and implemented standardized HF discharge protocols, including assessing all HFrEF patients for appropriate guideline-directed medical therapy before discharge. Staff were provided supplemental education, electronic health record (EHR) documentation interfaces were updated, chart review findings and monthly GWTG-HF data were analyzed and shared.

Results

- Between 2023 and 2024, the rate of prescribing quadruple therapy improved.
- Angiotensin Receptor Neprilysin Inhibitor (ARNI): 45% in 2023 to 58% in 2024
 - Mineralocorticoid Receptor Antagonist (MRA): 59% in 2023 to 80% in 2024
 - SGLT-2 Inhibitor: 58% in 2023 to 77% in 2024
 - Evidence-Based Beta Blockers: 78% in 2023 to 91% in 2024
 - Quadruple Therapy Composite Score: 61% in 2023 to 79% in 2024
- In 2024, the 30-day heart failure readmission rates decreased 14% from 32% to 18% overall, resulting in an estimated **\$163,000** reduction in readmission penalties.

Conclusions

With multidisciplinary team commitment, strong cardiology engagement, data sharing, provider education & implementation of standardized discharge protocols, BMH improved compliance with prescribing quadruple therapy prior to discharge, thereby significantly reducing readmission rates and readmission penalties.

References

1. [Call to Action: Rural Health: A Presidential Advisory From the American Heart Association and American Stroke Association](#) Originally published 10 Feb 2020 <https://doi.org/10.1161/CIR.0000000000000753> Circulation. 2020;141:e615–e644
2. Definitive Health, 2010-2020 County 35+ Age-Adjusted Rate per 100,000 Heart Disease/Stroke Deaths, July 2022.
3. [2022 Guideline for the Management of Heart Failure](#) Originally published 01 Apr 2022 <https://doi.org/10.1161/CIR0000000000001063> Circulation 2022;145:e895–e1032
4. American Heart Association’s Get With The Guidelines® – Heart Failure Registry
5. Beaufort Memorial Hospital EHR Data