



Advancing High Performance Health

AMGA Foundation

**Best Practices in
Managing Patients
with Heart Failure
Collaborative Case Study**

***Summit
Medical Group***



Organizational Profile

Summit Medical Group, established in 1929, is the largest for-profit, physician-owned and -governed multispecialty group in New Jersey. Now in its 88th year of practice, Summit provides comprehensive, integrated primary and specialty care for more than half a million patients in the area. Employing more than 700 providers representing over 70 specialties, more than 150 primary care physicians, and 25 cardiologists, Summit is composed of a flagship, four hubs, and over 70 satellites in over 7 counties.

Executive Summary

Participation in the AMGA Foundation Heart Failure Best Practices Learning Collaborative (HF Collaborative) quality improvement initiative to redesign Summit's HF management program was driven by the clear evidence-based need for standardized clinical pathways for HF management based on American College of Cardiology/American Heart Association (ACC/AHA) guidelines, and monitoring of compliance with these guidelines.

Summit implemented two concurrent redesigns of care for HF patients across its group:

- First was to standardize protocols for the diagnosis and management of HF for primary care physicians and cardiologists
- Second was to educate primary care physicians, nurse practitioners, and physician assistants in all primary care offices on the critical need for early treatment and identification of HF

To achieve this redesign, Summit formed a HF Collaborative committee—consisting of members from the Cardiology Department care team and of the Population Health team—and took several actions in the one-year HF Collaborative.

Program Goals and Measures of Success

Summit's goals while participating in this Collaborative included the implementation of a risk-stratification strategy to identify patients with unstable and progressive HF with predicted higher morbidity and mortality; development and

implementation of a treatment algorithm to reduce variability in practice; and implementation of prompt and easy, protocol-driven access to parenteral diuresis in ambulatory settings for prompt rescue of fluid overload.

Data Collection and Measurement

Summit's electronic health record (EHR) facilitated improved care coordination for all patients more effectively by automating data collection and presenting reminders to the provider and care teams at the point of care. The process was developed to include the two measures required by the HF Collaborative, ACEI/ARB and beta blocker utilization.

Population Identification

Summit has more than 175 providers addressing HF in 30 locations and created a group-wide registry for patients with HF to ensure that patients were identified early, adding them to the registry from its EHR and other potential sources:

- Adding all patients with an E&M visit in past 24 months and ICD-9 codes 428.x (now converted to ICD-10) on their problem list and/or claims
- Adding all patients with ejection fraction (EF) <40%

Intervention

Risk Stratification and Risk-Based Care Coordination

Summit implemented a risk stratification strategy to identify patients with unstable and progressive HF and predicted higher morbidity and mortality who require more intensive care management, as well as those patients with far advanced HF who will require palliative and end-of-life care. Risk stratification allowed them to match and deploy scarce resources to where they have the greatest positive impact on patient care and quality of life.

Intensive Care Management for High Risk Patients

Summit established group-wide systems for focused delivery of intensive care management for high-risk patients, with special emphasis on transitions-of-care management for post-hospital

and rehab discharge of patients at high risk for readmission. They expanded this approach to proactively manage HF patients with high prospective risk scores and to focus on those HF patients with recent urgent care center (UCC) visits.

Palliative Care for Symptom Management and Advance Care Planning

In collaboration with their Director of Palliative Care, Summit implemented use of a validated HF prognostic tool to identify patients with advanced HF disease refractory to traditional medical and interventional therapies and with high predicted mortality rates who would benefit from palliative and end-of-life counseling and care. Their palliative care team educates their HF providers about the value of structured palliative care collaboration and how to talk with patients and families about palliative and symptom management approaches.

Development of a Treatment Algorithm

Cardiologists and primary care physicians (PCPs) were not utilizing standardized protocols for classification, treatment, or care management of patients with HF. Variable protocols resulted in over/under-diagnosis, over/under-utilization of certain treatments, and a lack of data collection required to monitor and to standardize care.

Summit recognized that this situation presented a tremendous opportunity for the medical group to improve care of its HF patients. Summit's clinical pharmacist assisted cardiologists and PCPs in developing an evidence-based HF Treatment Algorithm that included an evidence-based medication algorithm (see Figure 3). All treatment protocols include treatment-to-target endpoints to reduce variability of care by providers.

Prompt Access for Fluid Overload Rescue to Avoid ED and Hospitalization

Summit implemented prompt and easy, protocol-driven access to parenteral diuresis in ambulatory settings, (i.e., cardiology offices and UCCs) for prompt rescue of fluid overload.

They implemented a Chronic Care Center (CCC) within one of their central UCC locations that provides convenient, timely access to specialized resources and which can respond to a patient's changing needs and urgent symptoms, resulting in reduced ED visits and hospitalizations. A HF-trained advanced practice nurse (APN) provides a single point of contact for patients with HF. The CCC improves access to care, both for

clinical visits and phone consultations. Protocol-driven lab testing and IV therapies are administered. Dedicated resources allow for short follow-up intervals and urgent access as needed.

Outcomes and Results

Summit reported on the utilization of ACEI/ARBs and beta blockers as well as hospital readmission rates. They identified a decrease in utilization of appropriate medical therapy in 2015 Q4 from baseline (Figure 1) which was due to improved data collection rather than a true reduction in treatment. Summit's clinical pharmacist conducted chart reviews of patients with a diagnosis of HF and an omission of ACEI/ARB and beta blocker therapy and collaborated with physicians to initiate treatment where appropriate. These interventions continue to have a positive impact on this measure as seen in 2016 Q4.

Summit routinely receives data from hospitals on admissions and observations. Their 30-day readmission baseline data was only based on 1 hospital while subsequent quarterly data (Figure 2) was based on the incremental increase of hospitals their rapidly growing demographic population was admitted to. Currently, hospitalized HF patients are managed by their hospitalist and internal medicine teams in conjunction with their cardiology staff and non-group cardiologists at 7 hospitals. Summit's recent payer data indicates variability in the cost of care and outcomes for HF patients in their different geographies, revealing a need for standardization of care to reduce hospital readmission rates.

Lessons Learned and Ongoing Activities

Summit identified the challenge of carrying out uniform transitions of care across all physical locations including hospitals, skilled nursing facilities, UCCs, and home. The lack of a universal EHR contributed; however, their team of Care Managers helped to serve as the central link connecting their patients across these transitions to intercept gaps in care. In addition, Summit faced the challenge of staffing the CCC with physician assistants and nurse practitioners. These challenges slowed the progress it anticipated achieving by the close of the HF Collaborative. Summit has since recruited and filled these positions and look to expand to weekend hours, open a second CCC in a different location, and continue their work

with its providers and care managers to find transitions of care solutions that facilitate high-quality outcomes for patients with HF.

Engaging patients in chronic illness management and shared decision-making is challenging and will continue to be a top priority for Summit. While it engaged patients throughout the Collaborative through the many social media outlets currently used by its marketing department, Summit also

plans on utilizing its patient portal. In addition, Summit has a care management team with expertise in patient engagement strategies, and a Patient and Family Advisory Council with which it will consult.

Participation in the HF Collaborative engaged and challenged Summit Medical Group's HF team to provide patients with an improved quality of care resulting in improved quality of life.

Patient Story

Like the 5.1 million Americans who will develop heart failure in their lifetime, Edward MacDonald simply wants to feel stronger. His initial symptoms—shortness of breath, heart palpitations, and swollen legs—left him fatigued and unable to complete everyday tasks. The condition had caused his heart muscles to become weak and stop pumping blood to the rest of his body as well as it should.

“I started experiencing blackouts and it was difficult to walk up the stairs or clean the house,” Mr. MacDonald recalls. “I did not want to believe that I had heart trouble, but eventually I had to wise up. I wanted to enjoy life.”

That is why Mr. MacDonald came to the Live Well Heart Failure Clinic at the Summit Medical Group. Together, a team of medical experts including cardiologists, physician assistants, and nurse case managers partner with patients to strengthen the heart muscles and improve tolerance for activity. Throughout a series of five sessions, physicians assess and diagnose the condition, develop an individualized treatment plan, manage medications, and educate patients about how to protect the heart from damage. To enroll, the clinic requires a referral from a primary care physician.

During the initial visit, the Heart Failure Clinic team focuses on diagnosing the condition. Patients receive a comprehensive medical history, physical exam, and undergo a brief test known as an electrocardiogram (EKG), which places sensors called electrodes on the chest to monitor the electrical activity of the heart. In follow-up visits, an echocardiogram, or echo—an ultrasound that takes pictures of the heart chambers, structures, and valves—is often scheduled. Specialized imaging scans, such as cardiac CT and MRI, are used if a more detailed image is needed.

Another important diagnostic tool is an exercise stress test. During the evaluation, patients are hooked up to a heart monitor and asked to walk on a treadmill at different speeds.

Mr. MacDonald says coordinating these tests at the Live Well Heart Failure Clinic was extremely convenient. “I know people who have to travel to different places for their appointment, blood work, and scans. Summit Medical Group makes the experience as easy as possible. Everything is located in one place,” says the 61-year-old who first came to the clinic four years ago.

Once the condition is diagnosed, physicians work together to treat the problem. For example, heart failure can occur on the left or right side of the heart. The condition can also be caused by a blockage that develops in the artery walls—the tubes that carry blood away from the heart—known as coronary heart disease, which Mr. MacDonald suffers from.

Surgical interventions are often needed to fix structural problems or open up a clogged artery. Most patients require a combination of medicines such as: beta blockers, which slow down the heart rate, ACE inhibitors, which lower the blood pressure, diuretics (water pills), which get rid of excess fluid, and cholesterol-lowering medications, which help prevent blockages.

“The care at the Heart Failure Clinic has been truly wonderful. If I call them, they get back to me right away. They are extremely thorough—filling me in on my test results immediately and constantly making sure my medication is adjusted properly,” says Mr. MacDonald.

Like many patients who come to the clinic, Mr. MacDonald has other health conditions in addition to heart failure, and needs nine different medications to manage these issues. As a result, it is beneficial for him to be part of an integrated care facility. At Summit Medical Group, physicians from more than 80 medical specialties and services communicate with each other through an integrated electronic medical record.

Another important part of the Heart Failure Clinic is educating patients about lifestyle changes that will keep their heart healthy. When patients are cleared for physical activity, it is recommended they walk for 30 minutes a day at any speed at least five days a week. Patients are also advised to maintain a healthy weight, eat nutritious foods, and cut back on substances that can affect heart function such as salt, cholesterol, and alcohol. Nutritionists work with the clinic and are available to help create individual diet plans when needed. Nurses also educate patients about stress reduction techniques.

“Heart issues have a lot of ups and downs. It is a bit of a dance at times, but the physicians and nurses are always on top of it,” says Mr. MacDonald. “I know I am in the right place.”

Adapted from an article by Carolyn Sayre for Summit Medical Group. For full article, see summitmedicalgroup.com/news/living-well/cardiac-clinic-turns-heart-failure-heart-success.

Appendix

Figure 1A: Measure 1 - ACE/ARB/ARNi (Summit)

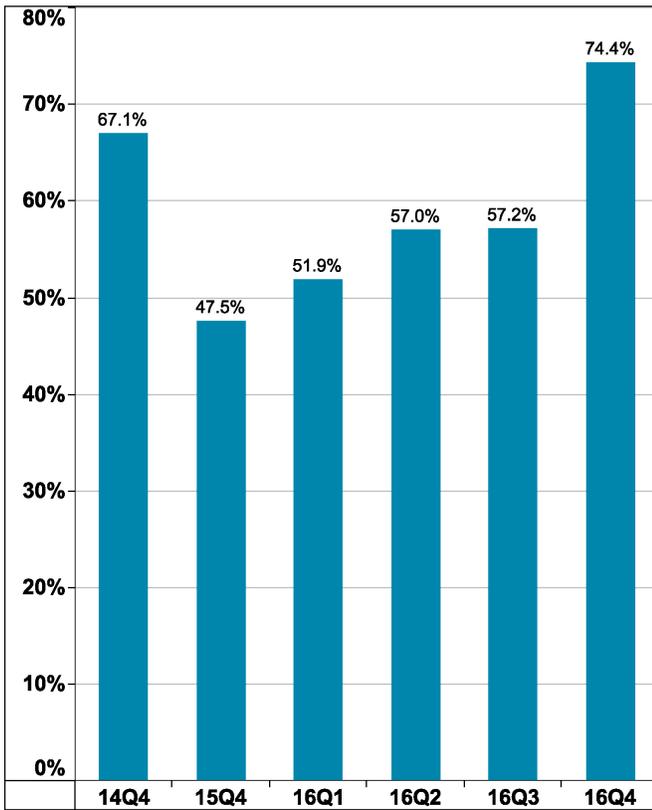


Figure 1B: Measure 2 - Beta Blocker (Summit)

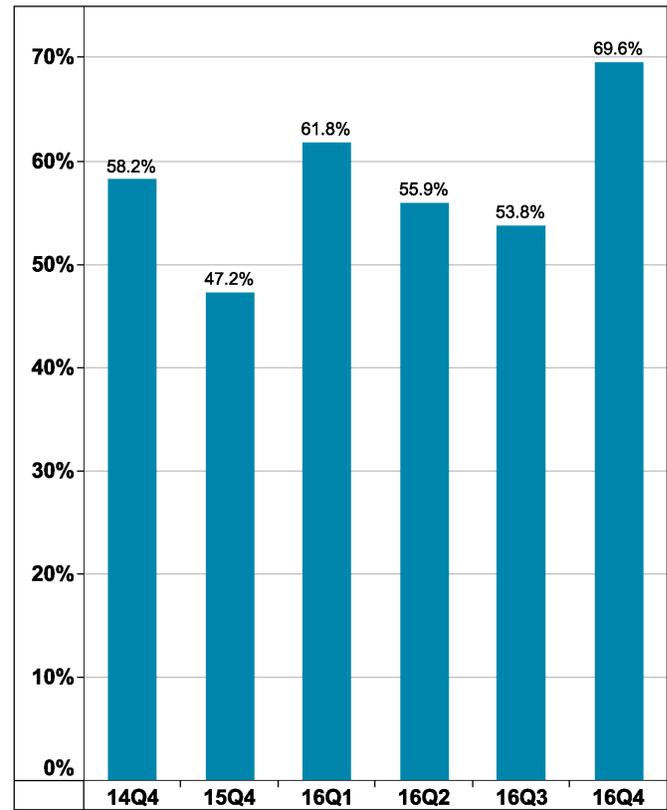


Figure 2: Measure 3 - Readmission Rate (Summit)

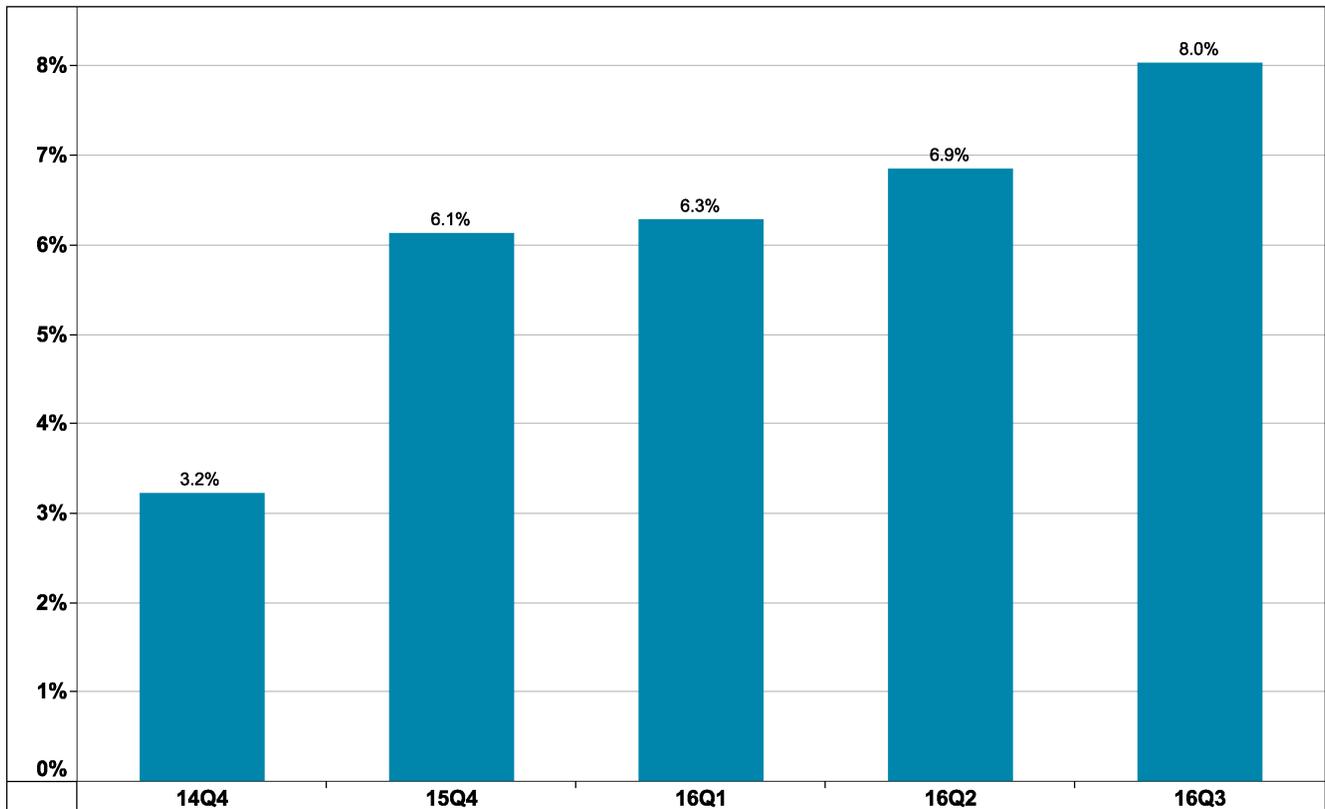
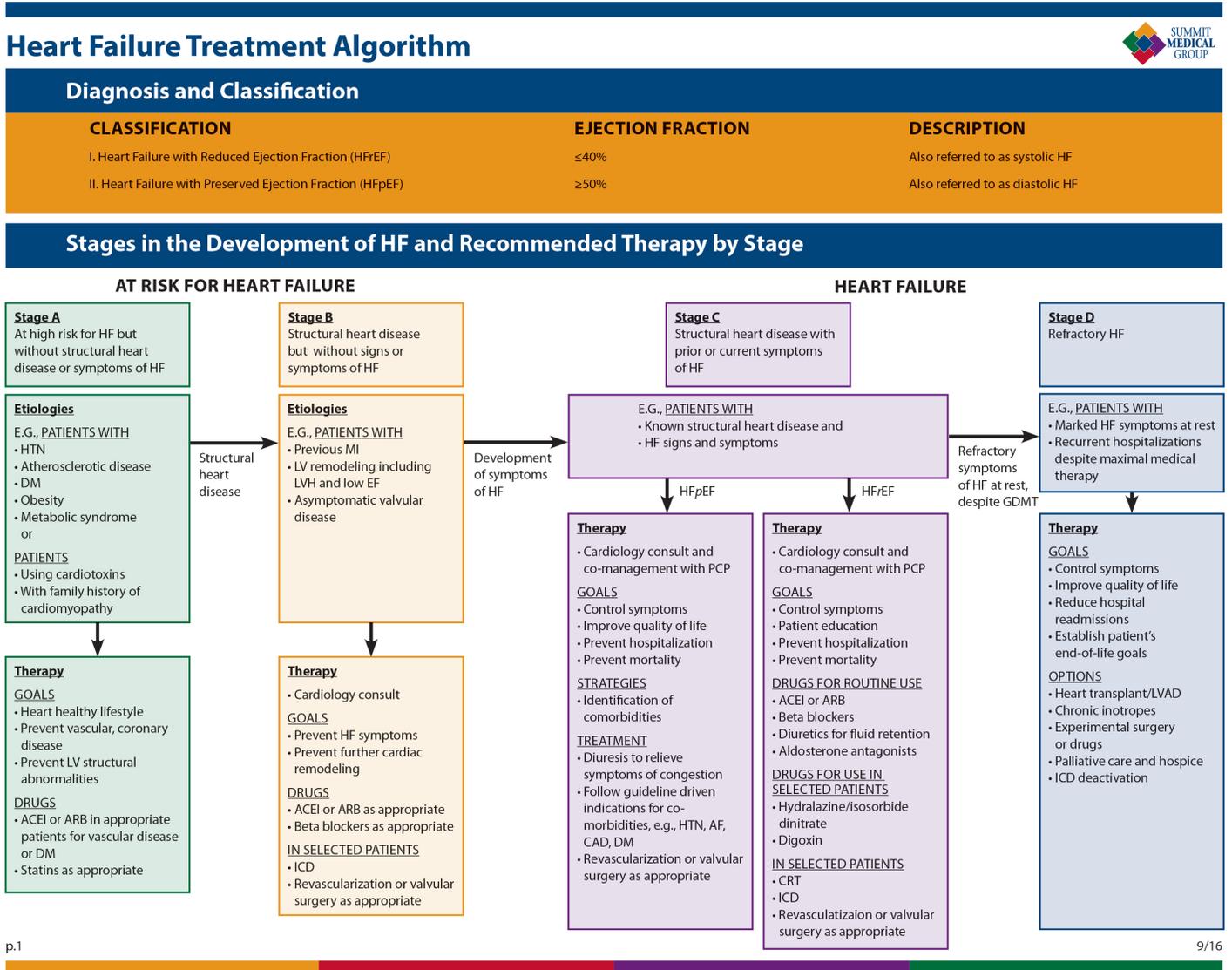


Figure 3: HF Treatment Algorithm


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