



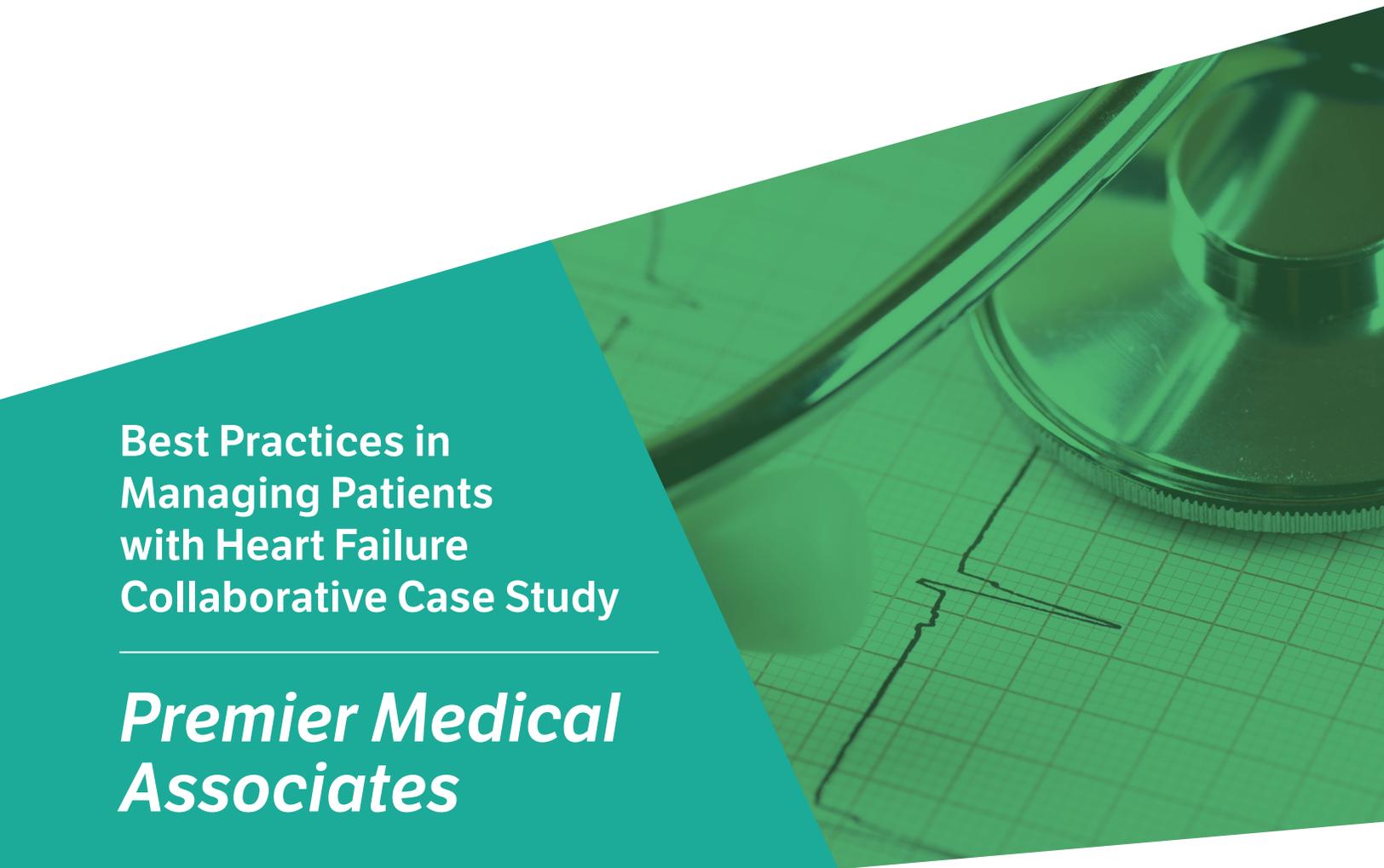
Advancing High Performance Health

AMGA Foundation

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

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***Premier Medical  
Associates***



## Organizational Profile

Premier Medical Associates (Premier) is the largest multispecialty practice in its region. The practice has touched the lives of over 100,000 patients in the last several years. Located in the eastern suburbs of Pittsburgh, Pennsylvania, Premier was formed in 1993. The practice belongs to an integrated system: Premier has been a part of Highmark Health since late 2011 and is a member of the Allegheny Health Network.

Premier's 100 providers are evenly divided between primary care providers and specialists. In Premier's primary care division, there are currently 19 Family Practice providers, assisted by 4 Advanced Practice providers (APPs), and 7 Internal Medicine providers, assisted by 1 APP. All adult Primary Care offices have achieved Level 3 patient-centered medical home recognition from the National Committee for Quality Assurance (NCQA) (2014 standards). As part of the integrated specialist care offered by the practice, there are 5 full-time cardiologists, assisted by 1 doctor of nursing practice (DNP).

The practice employs its own hospitalist division that is comprised of 17 physicians, aided by 3 APPs. Most of the practice's patients are cared for by its hospitalists at two hospitals located in the middle of the practice's geographic footprint: Forbes Hospital and UPMC East Hospital, both in Monroeville, Pennsylvania.

Ten outpatient office locations are also available for patient care. Premier is growing at a healthy pace, and the year 2016 witnessed 377,000 outpatient visits, the highest number of outpatient visits in Premier's history.

## Executive Summary

A large 2009 population analysis demonstrated that while 19.6% of Medicare beneficiaries required readmission within 30-days of discharge, heart failure (HF) was the leading cause of early readmission, with an even higher 26.9% rate.<sup>1</sup> The Pittsburgh Regional Health Initiative reported a similarly high 30-day readmission rate for patients with HF in southwestern Pennsylvania: 24%.<sup>2</sup>

Considering the extent of the nationwide problem of early hospital readmissions—and the number of HF readmissions both regionally and nationally—Premier's management and

provider teams elected to participate in the AMGA Managing Patients with Heart Failure Learning Collaborative (HF Collaborative). While the baseline rate for HF readmissions for Premier was much lower than these national and regional figures, Premier's goal was to share its effective measures, while also learning about successful interventions employed by other high-performing health systems, so as to increase the value of the care that HF patients receive within the practice.

Over the course of the yearlong AMGA HF Collaborative, increased adherence to evidence-based prescribing guidelines and multiple care coordination interventions led to a successful reduction in 30-day readmission rates for patients with HF.

## Program Goals and Measures of Success

Premier consistently strives to provide higher quality and higher value care to its patients, so the goals and objectives established by Premier at the onset of this care improvement initiative aligned with the overall goals of the HF Collaborative. Premier's Heart Failure Committee (HF Committee), from the beginning of the project, agreed that there should be a focus on increased provider compliance with evidence-based guidelines as to the prescribing of medications that would improve patient outcomes.

The 30-day readmission rate for Premier patients with HF was already lower than national, regional, and local values before the HF Collaborative began. In line with Premier's culture of excellence, the HF Committee goal was to reduce the readmission rate even further. There was no targeted reduction goal, but instead an understanding that any reduction improving Premier's already low rates of readmission would be celebrated.

Data collection for correct prescribing rates for HF patients with ejection fractions less than 40% was enabled with the use of the Optum One population health tool. Pursuit lists were created using the tool of patients not on appropriate ACE/ARBs, as well as for those not on CHF-specific beta blockers.

The collection of 30-day readmission data was assisted by the structure and geographic positioning of the practice. Rather than relying upon insurers or hospitals to provide data, the

rate could be calculated from Premier's billing data. Premier's patients with HF are almost always admitted to the two regional hospitals, where their care is provided by hospitalists or cardiologists employed by Premier. The billing data from these hospital stays was used to identify patients who were discharged with a primary diagnosis of HF and was then used to calculate HF-specific admission and readmission data.

## Population Identification

Premier does not have a specific HF clinic or program. Patients with HF receive care at Premier's 7 adult primary care offices from the 31 family practice and internal medicine providers in those practices.

Premier employs five full-time cardiologists who have a DNP who assists in the provision of outpatient care. The cardiologists provide a majority of their care at one central office location, but they also work out of one additional satellite location. HF management is part of the general care continuum provided by the cardiologists for all cardiac conditions.

The Optum One population tool was used by the practice to identify patients with HF and to assist with their management. As of November 30, 2016, there were 1,246 patients with HF on their active problem lists, and 483 (38.7%) of them had ejection fractions below 40%. This cohort was 48% female and 52% male. HF patients above the age of 70 made up 74%, with the largest overall subgroup in the age 80-89 category.

The entire HF population of the practice was addressed by the HF Collaborative, including all those receiving care from any of Premier's adult primary care and cardiology providers at all office locations.

## Intervention

Implementation of the action plan focused on improving the performance on the three main measures being tracked for the HF Collaborative:

- Improving prescribing rates for ACE/ARBs
- Improving prescribing rates for HF specific beta blockers
- Reducing 30-day readmission rates

The nurse navigators were tasked with performing a post-discharge call within 24-48 hours for every patient who left the hospital with a primary diagnosis of HF to arrange a follow

up transition of care (TOC) appointment with the patient's primary care provider within 5-7 days. Compliance with this TOC appointment process was tracked and published monthly (Figure 3).

The pursuit lists of patients who were not receiving evidence-based medication therapy were shared with the clinical pharmacist employed by the practice. The pharmacist was assigned to review the patient record, then required to send a reminder task through the electronic health record (EHR) to the patient's primary care physician (PCP) or cardiologist if evidence-based prescribing was not occurring. If the provider agreed, the pharmacist reached out to the patient at issue and attempted to convince the patient to begin the appropriate new medication(s).

The Optum One tool was used to guide the efforts of the nurse navigators. Using information from Optum's predictive models, patients who were predicted to be in the 80th percentile or above for risk of admission to the hospital in the next six months received intensified outreach efforts. Weekly telephone calls inquiring about the stability of HF symptoms—including swelling, shortness of breath, and weight gain—were the initial crux of the care coordination efforts. An example of the EHR template used to document these outreach calls is included in the appendix (Figure 4).

When the volume of these weekly calls—as well as the time commitment required for each—became too great, a technological solution was sought to make the process more efficient. Automated telephone outreach questionnaires were delivered to enrolled patients at 6:00 p.m. every Wednesday evening, where patients were asked to press a button corresponding with the degree level of their symptoms. Summaries of the results were distributed the next morning, and more intensive interventions were directed toward patients with worsening scores. The patients with stable symptoms required no further intervention until the next weekly automated call.

One local insurer offered an enhanced product for their Medicare Advantage patients who required additional care based on their clinical history/current symptoms. This advance illness service (AIS) program employed a team of physician-led APPs who worked in conjunction with PCPs and who were available for home visits around the clock seven days a week for patients whose symptoms were worsening. Of the patients in the 80th percentile or above for risk of hospital admission

for HF who had this Medicare Advantage product, 32 patients were referred to this AIS team. The AIS team offered palliative support in addition to more timely acute care, and patients often were referred to hospice care on a timelier basis.

Providers were educated about the goals of the HF Collaborative at an all-physicians meeting, and the practice's care coordination/nurse navigator team was also informed of the Collaborative goals.

## Outcomes and Results

Adherence with evidence-based prescribing guidelines improved substantially over the course of the HF Collaborative process, with correct ACE/ARB prescribing increasing from 89% to 94.7%. Correct beta blocker prescribing increased from 81% to 95.7%

TOC visit compliance was tracked, as well as the number of patients who completed the automated weekly phone outreach calls.

The 32 patients enrolled in the outpatient palliative care/advanced illness program included some of the practice's sickest HF patients since they were all in the 80th percentile or above for risk of hospitalization per the Optum One predictive model. This group of patients only had a 9.375% 30-day readmission rate during their first six months of enrollment in the palliative care program.

## Lessons Learned and Ongoing Activities

Multifaceted improvement interventions were required to improve the outcomes of patients with HF cared for by the practice. The combination of identifying the highest risk patients, targeted care coordination activities, and team-based improvement in evidence-based prescribing led to reductions in readmission rates. The processes implemented are sustainable and should be continued to benefit the care of this population long after the HF Collaborative process ends.

The value of palliative care/advanced illness support was proven for the population in the one Medicare Advantage plan that offered such services to its beneficiaries. The scalability issue occurs for this particularly effective intervention, since not all insurers offer this progressive and patient-centered benefit.

## References

1. Jencks, S. F., Williams, M. V., & Coleman, E. A. 2009. Rehospitalizations among patients in the Medicare fee-for-service program. *New England Journal of Medicine*, 360(14): 1418-1428.
2. Pittsburgh Regional Health Initiative. 2013. PRHI Readmission Reduction Guide: A Manual for Preventing Rehospitalizations.

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

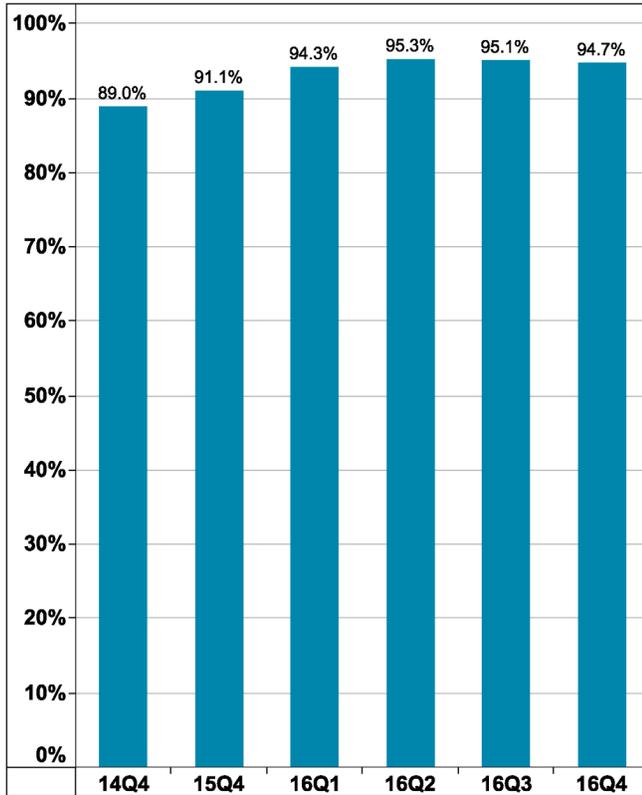


Figure 1B: Measure 2 - Beta Blocker (Premier)

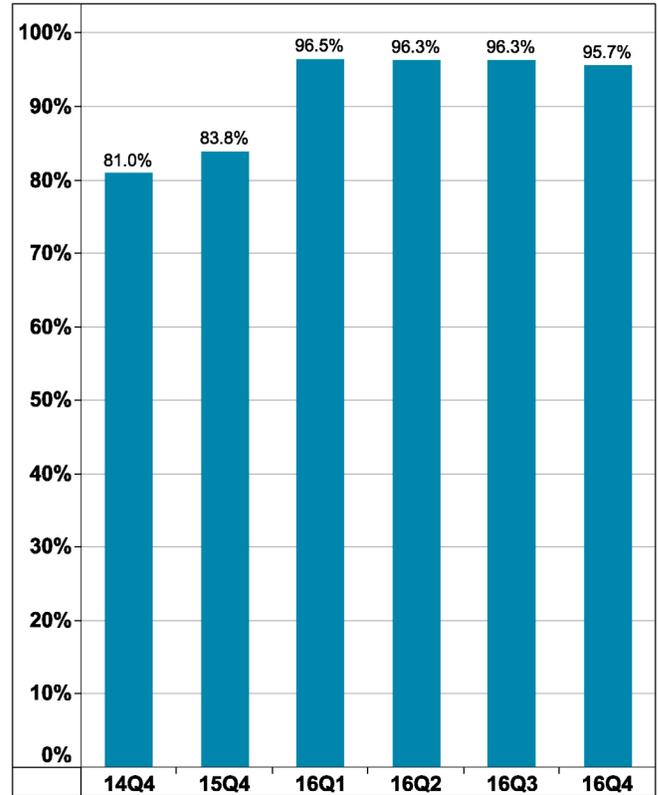


Figure 2: Measure 3 - Readmission Rate (Premier)

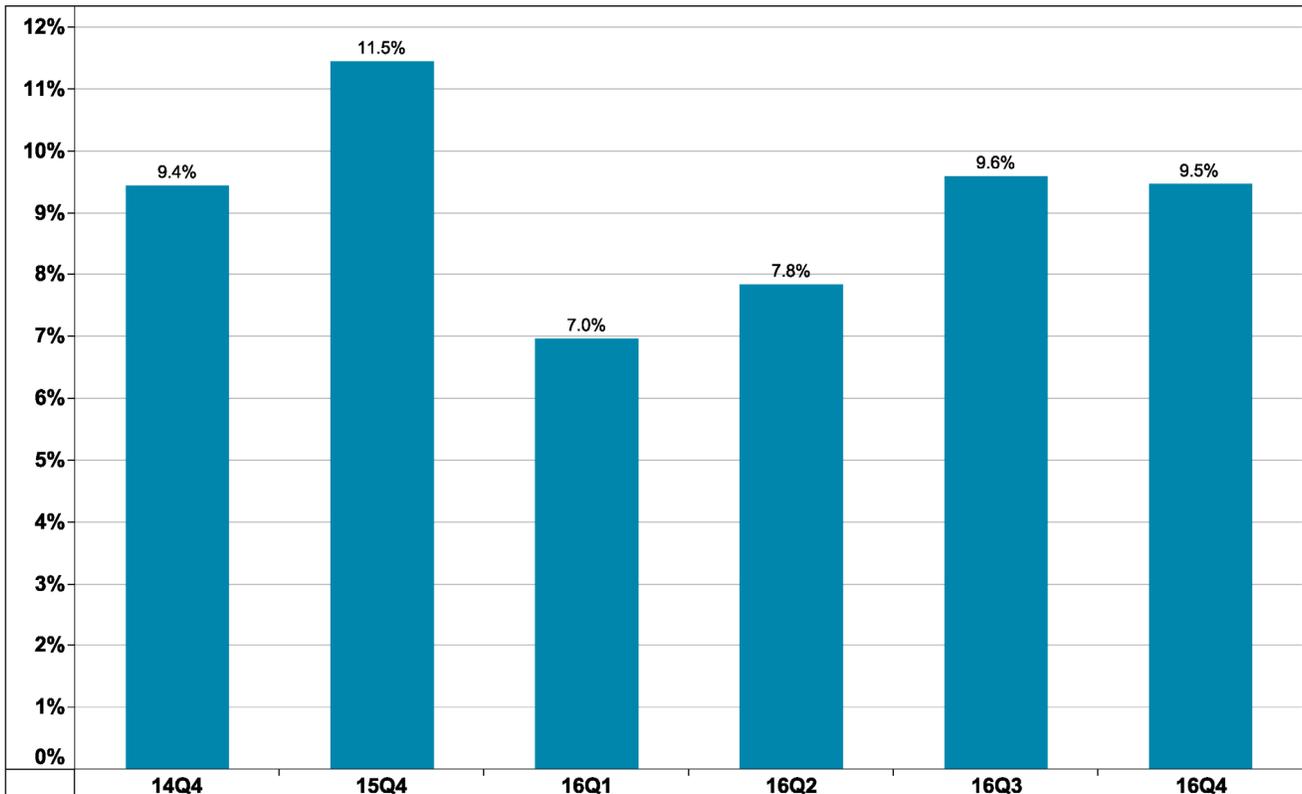


Figure 3: CHF Totals

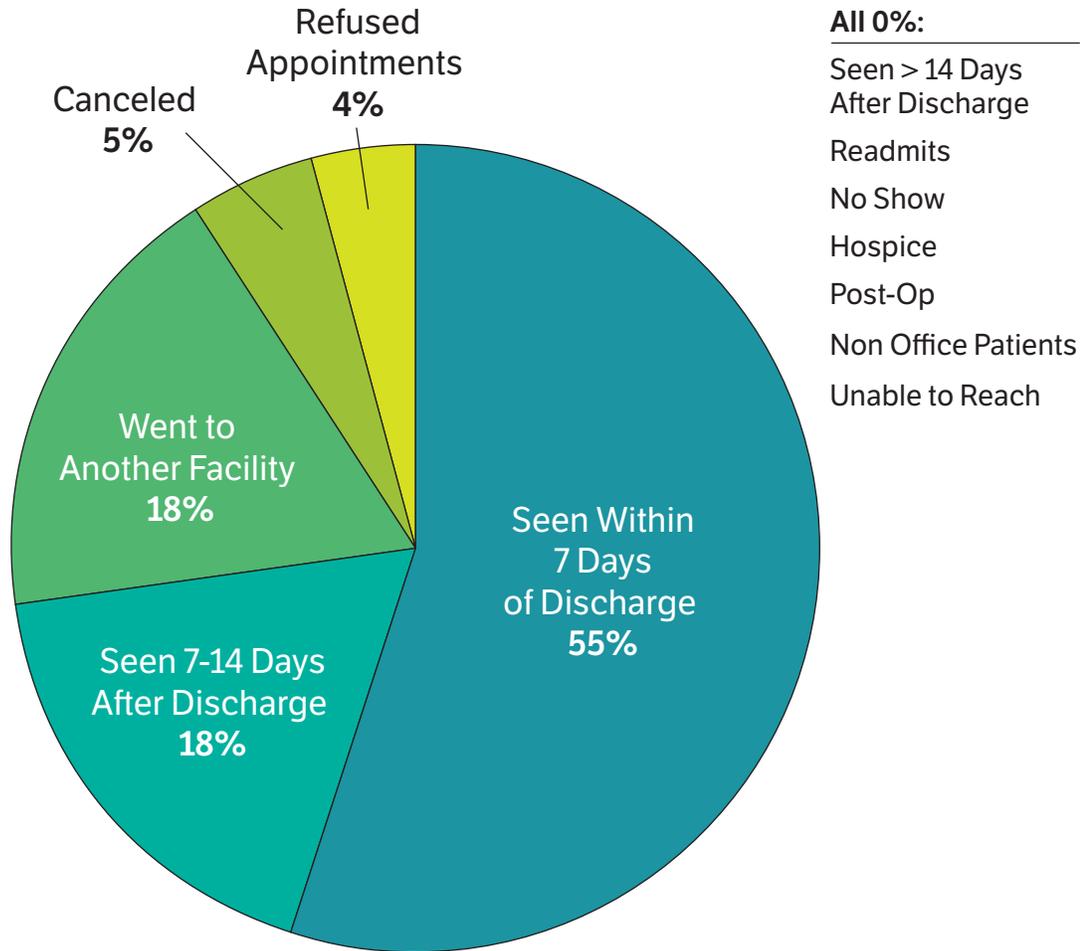


Figure 4: EHR Template

**Intake Questions**

What do you prefer to be called? \_\_\_\_\_

What is the best way to reach you? \_\_\_\_\_

Who do you live with? \_\_\_\_\_

Best Day to be reached \_\_\_\_\_

Best Time to be reached \_\_\_\_\_

Does anyone else help care for you?

Is there anyone you would like to bring with you for your visits?

Do you see a Cardiologist for your heart care? Dr. \_\_\_\_\_

Do you follow fluid restrictions?

Have you been hospitalized for HF?

Most recent hospitalization \_\_\_\_\_

How far can you walk before becoming SOB? \_\_\_\_\_

Medication list reviewed and reconciled

Do you take OTC meds or herbal supplements that may not be on the med list?

Smokers/secondhand smoke exposure

Do you own a scale?

Do you own a blood pressure cuff?

Do you follow a special diet?

Do your symptoms interfere with your daily activities?

Do you own a smart phone or a tablet?

Medication Adherence

Smoking Cessation Discussed

**Historical Clinical Information**

Beta Blocker

Ace Inhibitor or ARB

**Depression Screening**       PHQ 9

**HF Follow Up**

Daily Weights  \_\_\_\_\_ lbs     Most Recent Weight \_\_\_\_\_

Shortness of Breath

Difficulty Breathing At Rest

Difficulty Breathing After Climbing \_\_\_\_\_ Steps of Stairs

Difficulty Breathing While Walking Inside

Difficulty Breathing While Walking on Level Ground

Currently Taking Diuretic \_\_\_\_\_

Recently Hospitalized \_\_\_\_\_

Medical Refills Needed

Cardiac Rehab Ordered

Smoking Cessation Discussed

## Project Team

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