White Paper

Collaborative Learning Leads to Better Care for Heart Failure Patients across the Nation
In 2015, AMGA launched the Best Practices in Managing Patients with Heart Failure (HF) Collaborative through its philanthropic arm, AMGA Foundation. The goal of the collaborative was to bring together high-performing health systems and medical groups in a national forum to discover, develop, and adopt care processes that will enable patients to better manage their HF and improve their experience with the healthcare system.

HF is a chronic disease that affects 5.1 million people in the United States. It’s the leading cause of hospitalizations among adults 65 and older and costs are estimated at $32 billion a year. Total costs include healthcare services, medications to treat HF, and missed days of work. Admission rates following HF hospitalization remain high, with ≥50% patients readmitted to hospital within six months of discharge; although there have been improvement in outcomes and medical therapy.

Fifteen AMGA member organizations participated in the yearlong collaborative and focused on decreasing hospital readmission rates and improving the use of evidence-based treatments. Participating organizations consisted of AMGA member medical groups and integrated healthcare systems across eight states. The collaborative sought to leverage key learnings and facilitate a how-to approach through the sharing of best practices and lessons learned while using a population health management perspective.

Program Goals and Measures of Success

The participating organizations reported three quality measures, at baseline and quarterly, to show progress during the collaborative. AMGA Analytics used National Committee for Quality Assurance (NCQA) and Centers for Medicare & Medicaid Services (CMS) measures as a framework:

1. Proportion of HF patients on ACE Inhibitor or ARB Therapy for Left Ventricular Systolic Dysfunction (PQRS 5, NQF 0081) or Angiotensin II Receptor Blocker Neprilsyn Inhibitor (ARNI) therapy
2. Proportion of HF patients on Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (PQRS 8, NQF 0083)
3. 30-day HF all-cause hospital readmission rate (based on NQF 0330 and NQF 1789, except for risk adjustment)
In addition, participating organizations submitted quarterly action plans identifying their goals, objectives, and interventions implemented throughout the collaborative. Group interventions were reviewed to determine whether they had an effect on their outcomes. Select organizations hosted members of the AMGA Foundation team for site visits to learn about their interventions, challenges, barriers, and successes with a hope to spread the learnings to the other collaborative participants.

I. Heart Failure Population Identification

Measure 1 and 2

Patients 18 and older:

- Two or more face-to-face visits in an ambulatory setting (not in Emergency Department) OR one hospital discharge in the reporting period, with a PCP or cardiologist
- Current or prior left ventricular ejection fraction (LVEF) < 40%

Measure 3

Patients 18 and older:

- Number of patients with at least one “index” inpatient discharge (not including observation stays) during the reporting period with a principal diagnosis of HF.

II. Interventions

Participating groups practicing in primary care clinics, heart failure clinics, outpatient transitional care programs, community clinics, and BPCI-HF programs used a variety of interventions to meet the goals that would help them reduce hospital readmissions and improve care for HF patients.

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<thead>
<tr>
<th>Goal/Intervention</th>
<th>Groups That Used Intervention</th>
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<tbody>
<tr>
<td>Create multidisciplinary teams</td>
<td>All</td>
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<tr>
<td>Increase role of pharmacist</td>
<td>All</td>
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<tr>
<td>- Developed strategic plan</td>
<td>Summit Medical Group</td>
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<tr>
<td>- Provided patient education and medication reconciliation</td>
<td>NorthShore University HealthSystem</td>
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<td>- Developed HF treatment algorithm</td>
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<td>- Utilized pharmacists in outpatient clinic</td>
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<tr>
<td>Goal</td>
<td>Intervention</td>
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<tr>
<td>Collaborate with Skilled Nursing Facilities (SNFs) to improve transition of care</td>
<td>• Educated and trained SNF staff</td>
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<td>• Initiated contract agreements to support continuity of care after hospital discharge</td>
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<td>Educate providers and staff</td>
<td>Initiated systematic education program</td>
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<td>Risk stratify population</td>
<td>Used risk assessment tools (LACE and Integer HFPSI Score) to identify patients who were high risk for admission</td>
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<td>Improve transitions of care</td>
<td>• Implemented HF specialty care coordinator</td>
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<td></td>
<td>• Used care coordinators and nurse navigators</td>
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<td></td>
<td>• Conducted two- to-three-day follow-up calls post discharge</td>
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<td>• Conducted seven-day appointment follow-up after discharge</td>
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<td></td>
<td>• Established an outpatient discharge clinic for 2- to 3-day appointments</td>
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<td>Improve fluid management post hospitalization</td>
<td>• Established IV diuresis clinic/space</td>
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<td>• Used IV Lasix protocol for home visits</td>
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<tr>
<td>Integrate new technology</td>
<td>• Non-invasive external impedance monitor that detects changes in fluid status</td>
</tr>
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<td></td>
<td>• CardioMems - remote pulmonary artery monitoring for high-risk patients</td>
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### Goal | Intervention | Groups That Used Intervention
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Integrate remote patient monitoring | • Home monitored weight, pulse oximetry, and blood pressures with transmissions back to the HF clinic for review
• Automated outreach call system to assess patient status at home | OhioHealth
Premier Medical Associates

Initiate or expand palliative care (PC) | • Instituted provider education - two- to three-day training on Palliative Care and Advance Directives
• Improved referral process to increase length of services | All
Mercy East Communities

Educate Patients | • Developed HF education materials
• Provided tools to assist patients in managing their disease, including pill boxes, scales, and 8-oz. cups to measure fluid intake
• Designed medication bags to be brought to the provider appointment which contain all of the patient’s medications for reconciliation
• Provided patient and family education prior to discharge | Several members
Summit Medical Group
Summit Medical Group, Premier Medical Associates, OhioHealth, Valley Medical Group

### III. Outcomes and Results
Collectively, the participating organizations lowered their all-cause readmission rate for their HF patients. Consolidated data from the participating organizations showed that the percentage of HF patients who were readmitted within 30 days for any cause decreased from 27% just prior to the collaborative to 15% by the end of the collaborative, compared to the national average of 21.6%.

1.
IV. Lessons Learned

- The most significant challenge for the groups during the collaborative was capturing the LVEF data in the electronic health record (EHR) for measures 1 and 2. Lack of a discrete field in the EHR and information documented in provider notes initially prevented groups from obtaining accurate data and identifying their population. Manual extraction of the LVEF from the providers’ notes was placed into the EHR in a discrete field. Creation of this field within the EHR was necessary for a few groups and caused a slight delay in the groups’ progress.

- Approximately 70% of HF admissions and readmissions are related to comorbid conditions and diagnoses unrelated to HF. Having nurse care managers and a social worker in the home, along with an interdisciplinary team that meets weekly to review complex patients and a high-level administrative steering team who monitors results, are keys to success.

- Adopt a physician champion who is respected among his/her peers.

- Talent-share with the IT team to establish a good working relationship.

- There is an essential need for a strong hospice/palliative care and advanced care planning program.
Follow-up care post-discharge is paramount in preventing readmissions for HF patients.

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.

**Summary**

Prevention of readmissions for HF requires collaboration and support from the patient’s entire healthcare team and all the ancillary services and resources that surround the patient’s care. With a commitment for improving care for their patients, 15 AMGA member organizations were able to come together in a national forum to share best practices, discuss challenges, and spread lessons learned which ultimately led to them successfully reducing readmissions.

In addition to achievements in reducing readmissions, some of the participating organizations improved processes to ensure patients were being prescribed the specific beta-blockers identified in best practices.

Participating in the Best Practices in Managing Patients with Heart Failure Collaborative provided the organizations with mission-critical strategies to engage their specialty and primary care departments in performance measurement; a population health management perspective; overall improvement in delivery of care; and a model that can be replicated in the approach to the management of other chronic diseases.

The organizations also had the opportunity to track appropriate treatment and readmission rates to help them meet key quality measures, with the goal of achieving the Triple Aim: better health, better health care, and lower per capita costs.

The goal of AMGA Foundation learning collaboratives is to create a community of knowledge that can help participants accelerate systematic change and making lasting breakthroughs in quality patient care. We were able to achieve this in the Managing Patients with Heart Failure Collaborative and support AMGA members to improve the way patients with HF experience our healthcare system.

**References**


Authors

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Participating Groups

Centura Penrose-St. Francis Hospital, Colorado Springs, CO
Cleveland Clinic, Cleveland, OH
Kelsey-Seybold Clinic, Houston, TX
Mercy Clinic East Communities, Eastern Missouri
NorthShore University HealthSystem, Chicago, IL
OhioHealth Mansfield, Mansfield, OH
Premier Medical Associates, Pittsburgh, PA
PriMed Physicians, Cincinnati, OH
Springfield Clinic, Springfield, IL
Summit Medical Group, Summit, NJ
TriHealth, Cincinnati, OH
USMD Holdings, Inc., Dallas-Fort Worth, TX
University of Utah Medical Group, Salt Lake City, UT
The Valley Hospital, Ridgewood, NJ
Watson Clinic, Lakeland, FL

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