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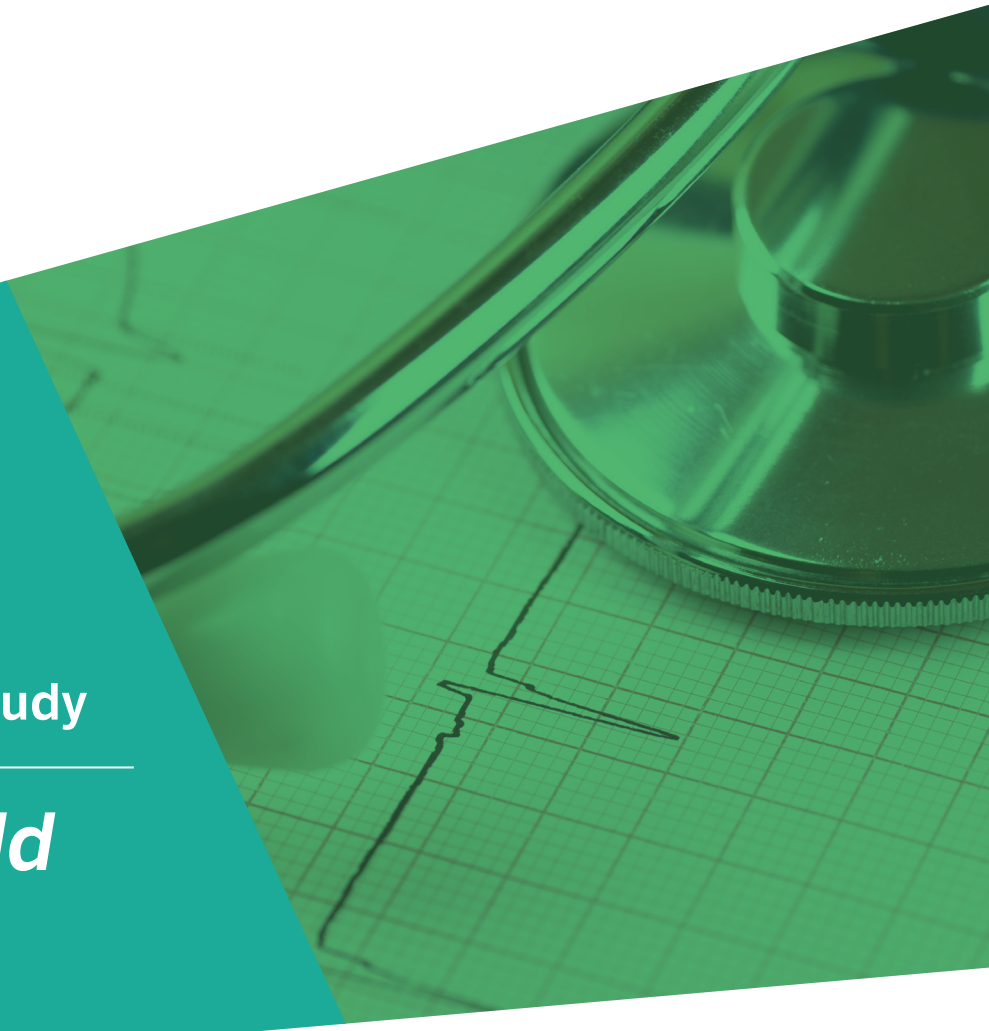


Best Practices in Managing Patients with Heart Failure Collaborative Case Study

Kelsey-Seybold Clinic

Organizational Profile

Kelsey-Seybold Clinic (KSC) was founded in 1949 by Dr. Mavis P. Kelsey. Modeled on the Mayo Clinic, KSC was the first medical group of its kind in the Houston area—bringing together specialists, general practitioners, nurses, and other health providers as a team to provide multispecialty treatment within the Houston Medical Center.

Over the past six decades, the organization has witnessed tremendous growth. KSC now spans throughout the city of Houston and its surrounding areas to include:

- 20 clinics
- 2 Ambulatory Surgery Centers (ASCs)
- Nationally accredited Cancer Centers located at the Main Campus and the Spring Medical and Diagnostic Center

There are 12 cardiologists providing services to 12 KSC clinic locations. In total, KSC employs more than 400 physicians encompassing over 55 specialties that serve more than a million visits annually.

Executive Summary

Heart failure (HF) is a chronic and progressive condition that has an increasingly high morbidity and mortality rate coupled with a high cost of care. It impacts roughly 5.7 million people in the United States alone, and nearly 50% of those who are diagnosed with HF will pass within five years. HF contributes to the rising burden of financial issues within health care. With the rise of HF cases, there has been a steadily increasing cost of care, projected to reach an estimated $70 billion in 2030. Currently, both direct and indirect costs associated with HF are estimated at $30.7 billion.

Routine assessments of disease activity and functional status are a key aspect of high-quality HF care. For the HF patient, maintaining a healthy lifestyle is essential to manage the HF condition.

According to the American Heart Association (AHA): "Following recommendations about diet, exercise, and other habits can help to alleviate symptoms, slow your disease's progression, and improve your everyday life. In fact, people with mild to moderate HF often can lead nearly normal lives as a result."

The purpose of this study and KSC's involvement in AMGA's Best Practices in Managing Patients with Heart Failure (HF Collaborative) was to assess the implementation of evidence-based medicine in the management of HF by utilizing the best practice methods from PQRS measures, as well as the AHA's endorsed quality measures.

During the initial phases of this study, KSC did not have the necessary workflows in place to assess the disease activity and functional status of HF patients; also KSC was in the process of developing better practices for their newly-opened HF Clinic.

A primary analysis was performed which revealed that there were no standard methods for:

- Capturing patients' left ventricular ejection fraction
- Monitoring the status of patients admitted to KSC HF Clinic
- Keeping track of HF patient readmissions

The analysis of the HF plan revealed several opportunities for improvement.

In order to seek improvement KSC's HF Clinic/Committee provided recommendations to:

- Develop and integrate a functional assessment within the electronic medical record (EMR) in conjunction with a Best Practice Alert (BPA)
- Educate staff
- Increasing patient engagement

The committee chose Kelsey-Seybold Clinic-Main Campus to pilot the program.

Program Goals and Measures of Success

KSC established the following goals for managing patients with HF:

- Develop an effective method of capturing left ventricular ejection fraction (LVEF)
- Continue to educate clinical staff regarding the importance of admitting HF patients to the HF Clinic
- Reduce unplanned hospitalization/ER readmissions
- Create BPAs for HF patients in EMR
- Create HF encounters in electronic health record (EHR)
- Participate in the AMGA HF Collaborative

Measures of Success

Prior to the implementation of data capturing and workflow processes within our EHR system for extracting functional assessment data, KSC had not yet established an official baseline. Nevertheless, when inquiring about the participation of AMGA's HF Collaborative, KSC determined the baseline for Measure 1 ACE/ARB was 92.9%; Measure 2 Beta Blocker was 88.0%; and Measure 3 unplanned readmissions was captured at 18.7%, as our systems provided the capability of extracting such data from our clinical and billing systems.

AMGA's HF Collaborative was utilized as a benchmarking mechanism. Collaborative participation began in the third quarter of 2015.

- Quarterly Collaborative Baseline Measurement (Goal Achieved)
- Collaborative 1 (2015) ACE/ARB Therapy 90.1%, beta blocker 88.1%, and readmissions 15.1% percent (goal achieved on readmissions). The Epic EMR and documentation workflow did not provide a reportable evidence-based measurement tool to LVEF or readmissions effectively.

Population Identification

Quarterly reports were generated utilizing both clinical and claims data from our Epic EMR system, capturing data for KSC's 12 cardiologists serving 12 clinic locations.

The following were the AMGA HF Collaborative measurement tools (PQRS measures):

- ACE/ARB Therapy
  - Numerator: patients with HF that have been prescribed an ACE inhibitor or ARBs
  - Denominator: patients 18 years or older, with a diagnosis of a HF with a LVEF > 45%
- Beta-Blocker Therapy
  - Numerator: patients with HF that have been prescribed an ACE inhibitor or ARBs
  - Denominator: patients 18 years or older, with a diagnosis of a HF with a LVEF > 45%
- Unplanned Readmission
  - Numerator: patients with an unplanned readmission
  - Denominator: patients 18 years or older, with a diagnosis of HF
- EHR used to facilitate the care process
  - BPA to identify all established patients with a diagnosis of HF
  - Smart Form built into the EHR to capture and calculate data

Intervention

The HF Collaborative Task Force was created and the baseline scores were presented to them. The committee recommended the following interventions:

- Collaboration with Information Technology to design and deploy a functional assessment tool accessible within the Epic system
  - Create HF encounters with BPAs
- Improved Staff Education
  - Documentation and use of educational material in the HF clinic
  - One-on-one nurse/provider instruction on the utilization of the HF clinic
- Improved Patient Engagement
  - Posters
- Applied/Developed Epic EMR enhancements to assist with implementation
  - Best Practice Alerts (BPAs)
- Pilot Program
  - Main Campus – HF Clinic

Outcomes and Results

The 30-day readmission rates have consistently trended downward since participation in the AMGA HF Collaborative. From 18.7% at the start of the Collaborative, readmission rates have been reduced to 12.5%. Rates for ACE/ARB therapy, already high when the Collaborative began, remain high at 90.9%. Beta blocker use has also remained high at 82.1%.

Lessons Learned and Ongoing Activities

Leadership Involvement and Support

Throughout the project, the entire team observed several lessons, including how important it is to:

- Incorporate strong, knowledgeable members as part of the team and build stronger pathways of communication
- Adopt a physician champion that is respected among his/her peers
- Talent share with the IT team to establish a solid, positive working relationship

Challenges

- Enlisting physicians to join in collaborative efforts such as this one
- Identifying and creating methods to extract relevant data
- Creating a platform where all participants in any given collaboration can communicate effectively

Next Steps

The Physician Champion will educate cardiologist providers and staff, while improving the admission of HF patients to the HF clinic for managing treatment.

- Determine when it is appropriate to refer true HF patients to the HF clinic
- Managing educational tools for HF patients
- Work with QI Team to create effective tools in capturing accurate data

Kelsey-Seybold Clinic will continue to monitor the measures implemented by the HF Collaborative and report findings to the HF Committee on a quarterly basis. KSC will continue to raise awareness as to the benefits of the HF clinic and continue staff education.

References

American Heart Association. *Lifestyle Changes for HF*. Retrieved February 7, 2017, from American Heart Association: www.heart.org/HEARTORG/Conditions/HeartFailure/TreatmentOptionsForHeartFailure/Lifestyle-Changes-for-Heart-Failure_UCM_306341_Article.jsp#.WJntpv4zW2w.

Centers for Disease Control and Prevention (CDC). *HF (HF)* . Retrieved February 7, 2017, from Centers for Disease Control and Prevention (CDC): www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_heart_failure.htm.

Appendix

Figure 1A: Measure 1 - ACE/ARB/ARNi (Kelsey-Seybold Clinic)

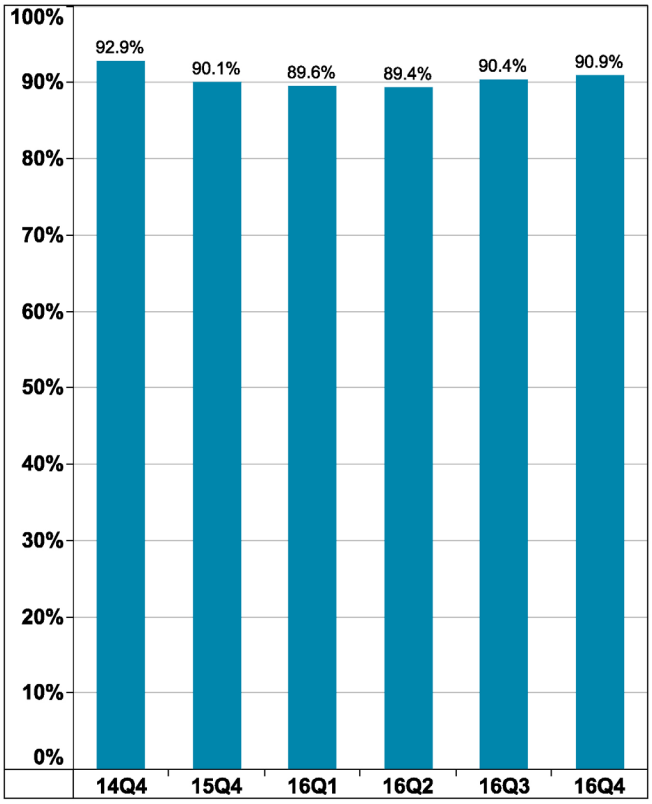


Figure 1B: Measure 2 - Beta Blocker (Kelsey-Seybold Clinic)

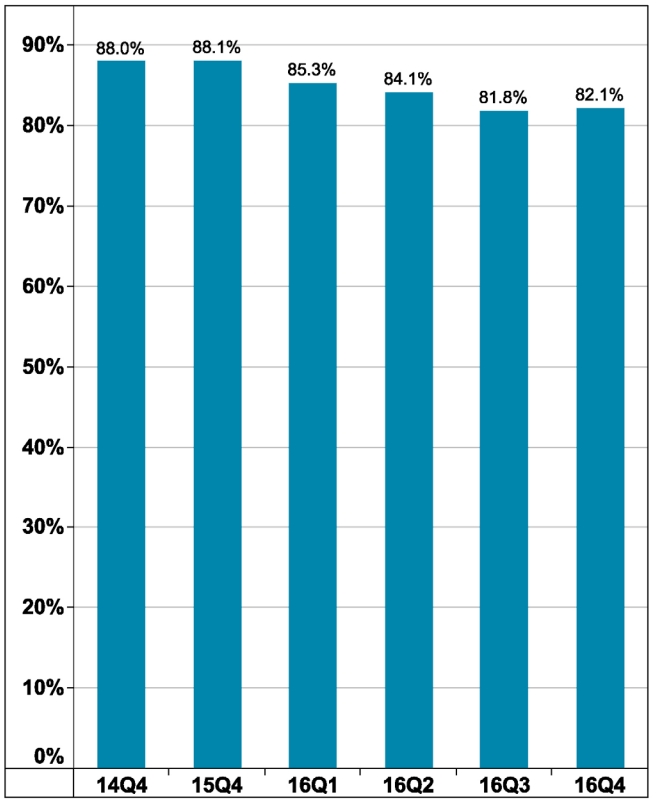
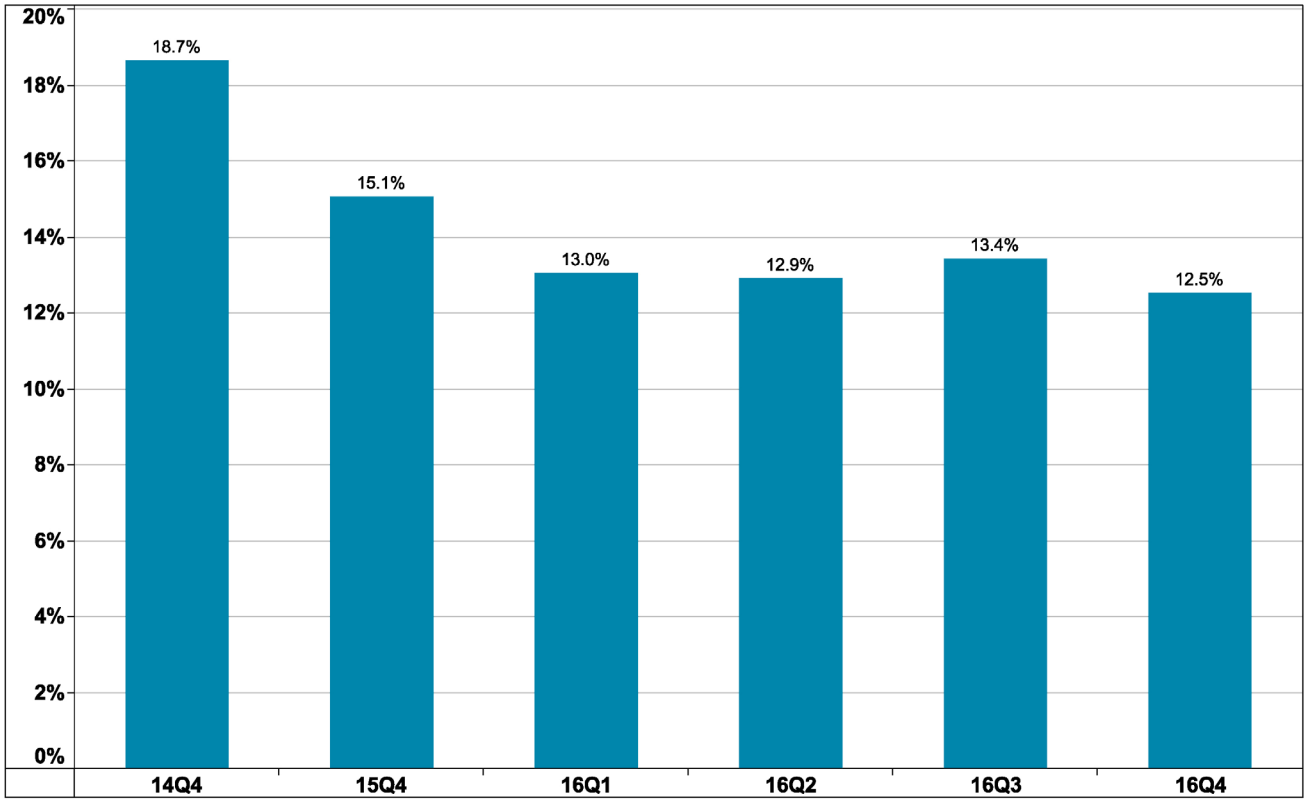


Figure 2: Measure 3 - Readmission Rate (Kelsey-Seybold Clinic)



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