APPLICATION FORM

Title of Entry: Heart Failure Hospitalist Team: An Example of Interdisciplinary Excellence

Division: Large Organizations

Award: Excellence in Care

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The Hospital and Healthsystem Association of Pennsylvania (HAP) Achievement Awards

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EXECUTIVE SUMMARY

Heart Failure Hospitalist Team: An Example of Interdisciplinary Excellence

Heart Failure (HF) is an important health care issue given its high prevalence, mortality, and cost of care. By 2030, greater than 8 million Americans will be living with HF. The projected cost will increase to close to 70 billion with the majority of the cost attributed to hospitalization. Despite numerous evidence-based strategies in the literature to reduce HF readmissions, patients with HF remain at high risk for subsequent hospitalization with 20 to 25% readmitted within 30 days.

Most HF admissions are co-managed with cardiology and non-specialist service lines, hospitalist or resident teaching service. Although, prevention of readmissions is an overarching goal, readmissions do happen. With the current care model, this organization’s HF patients rarely had a consistent provider if readmitted. Lack of consistency reduced the ability to develop trusting relationships which are essential to facilitate goals of care discussions. In addition, even the best clinical documentation is challenged to record patient specific treatment plan successes and failures.

To address this health care priority at one health care system with approximately 1,200 HF patients annually, an interdisciplinary HF team created a HF Hospitalist service at one facility to support an environment of patient centered care across the continuum. Standardized protocols for both HF admissions and HF patients admitted for non-HF admissions focus on providing continuity of care. This innovative team provides acute evaluation and management for HF symptoms both in the observation and inpatient setting.

The HF Hospitalists provide quality care with frequent daily rounding, optimization of HF medications, patient and family education to improve treatment plan adherence and early discussion of palliative and hospice transition. Furthermore, the HF hospitalist team coordinates care with the HF outpatient center. The goal is early post-hospital provider follow-up to aggressively monitor HF patients. The hospitalist team meets daily with HF Nurse Navigators to support the system’s outpatient self-management program. This program uses an 8-visit template to review action plans, goals of care, medication reconciliation and education.

The team also implemented innovative techniques such as Community Paramedicine outpatient visits to carry out intravenous diuretic protocols in the home, virtual/telemedicine visits, and ReDS-VEST technology to monitor for signs of early exacerbation and prevent readmissions. At this community-based health care system, impressive HF Hospitalist outcomes include decreased length of stay; decreased 30 day all cause readmission to 9% (48.5% absolute reduction when compared to non-HF Hospitalist HF admissions as well as national averages), reduced 30 day HF readmissions to 3.13%, as well as transitioning 13% patient to hospice care; all while reducing costs during the first 12 months of the HF Hospitalist service.
ASSESSMENT

A community-based health care system supports the robust interdisciplinary heart failure program. Led by a master’s prepared clinical nurse specialist and cardiology medical director, the program has been recognized by the Joint Commission and earned certification for advanced heart failure. In addition, the program was awarded Gold-plus Target Heart Failure award by the American Heart Association. Since 2013, the program has reduced system-wide all cause heart failure readmission rates from nearly 26% to 17.5%. In addition, heart failure inpatient mortality was reduced from 6.2% to 1.9%.

Cardiology and hospitalist leadership, in conjunction with financial stakeholders, analyzed HF data and proposed an opportunity for improvement based on HF metrics from FY 16 and FY 17. Leadership focused on these opportunities: Length of Stay all payers (FY16-5.5; FY17-5.6); Order set usage (FY16-82.8%; FY17-67%, which reflects process concerns post-implementation of a new electronic medical record system); All-cause 30-day HF readmission rates(FY16-17.5%; FY17-20%); Readmission with HF (FY16-6.71%; FY17-6.7%); and Referral to Supportive Care/Palliative Team (FY16-21%; FY17-20%). Cardiology and hospitalist leadership met to discuss the development of a new service line within the organization. All parties recognized the need to foster consistent inpatient provider care that was lacking in the current model. The concept of a dedicated Heart Failure Hospitalist service line emerged. Intensive literature review revealed that this specific care model is virtually non-existent. A few organizations have employed a cardiologist into their hospitalist program but utilization of non-cardiology hospitalist led HF team is unique.

INTERVENTION

Baseline data and the organizational needs assessment supported the following HF Hospitalist Service Line opportunities:
- Reduce 7-day and 30-day readmissions
- Accept direct admissions from HF clinic, cardiology office and PCP office
- All non-critical care heart failure admissions would be done by HF hospitalist
- Provide individualized care of HF patient in observation unit, inpatient or home
- Increase use of HF order sets on admission
- Discharge patients in a timely and safe manner with smooth transition home
- Provide support after discharge via the Heart Failure Clinic
- Introduce Palliative/hospice service early
- Assure accurate medication reconciliation
- Development of post discharge monitoring and action plans
- Achieve high patient satisfaction
- Reduce length of stay.

The initial implementation plan was to focus the HF hospitalist care to one nursing unit at one facility. This unit generally admitted patients with both primary and chronic HF. The new team provides care from 0700-1900 every day. Consistent with established unit interdisciplinary patient management, the hospitalist team participates in morning huddle and afternoon interdisciplinary rounds. All non-critical care heart failure admissions would be done by the hospitalist admission team in the emergency room. This admission team would be directly supervised by the two HF hospitalists. After 1900, the HF hospitalist team phone would always be carried by the same hospitalist team. This team would report
to the HF hospitalist team at 0700 the next day. Any HF admissions would be handled during the night by a specific night hospitalist team.

The HF program follows the 2013 AHA/ACC Guidelines for the Management of heart Failure with the 2016 and 2017 updates. Adherence to evidence-based care is an expectation at this organization with Advanced HF Certification. To promote best practice, the HF order set is the adopted method to implement clinical practice guidelines on admission. Initial assessment data for this project revealed a decline in order set usage post-implementation of the new electronic medical record. Based on concurrent surveillance by the HF program manager, the HF Hospitalists were able to provide individual coaching to providers not using order sets. Order set adherence outcomes were reported at the monthly interdisciplinary HF committee.

The team also developed a plan to reduce emergency room utilization. The HF program manager obtains a monthly report of all patients with primary heart failure. The HF hospitalists review this data to focus efforts on chronic/high utilizers. The HF hospitalist team conducts surveillance of the emergency department and works with admission teams to direct patients, when appropriate, to care outside of the inpatient setting, particularly in the observation units. Great success has been noted when care is managed in the observation areas. The clinical nurse specialist/HF program manager worked with system leadership to expand the outpatient HF center to accommodate acute-need appointments so that patient care is optimized early in the community.

Clear and concise documentation in the electronic medical record is a strength of this team. Across service lines, however, inconsistencies in documentation regarding HF metrics and response to medical treatment plan caused gaps in documentation. The team developed a template to allow for a standardized method of documentation. (see Appendix A)

An innovative Community Paramedicine program was initiated to intervene with HF patient at home during early HF exacerbations. An interdisciplinary team developed a protocol for the paramedics to provide standardized care in the home. The paramedics are dispatched to assess known HF patients at home, obtain lab work, administer intravenous diuretics, monitor response to therapy and arrange for home and HF center follow-up care.

Despite ongoing medical advances, 50% of patients diagnosed with heart failure will die within 5 years. Early discussions about Palliative care and development of individual patient and family goals of care are difficult. The HF interdisciplinary team already developed daily hospice in-house coverage and coordination with the system’s Palliative team. The challenge was directing patients and families to these end-of-life options when appropriate. This team of consistent providers developed action plans to meet with dilemma. Consistency in providers allowed for the development of a trusting relationship. The HF hospitalists and the HF nurse navigators were literally at the right place at the right time to meet this need. These importance conversations could occur frequently, building on previous discussions and patient/family preferences.

Furthermore, the team of consistent HF hospitalists and certified HF nurse navigators coordinate seamless outpatient care. Through these trusting relationships, important HF metrics such as 5-7day post-hospital appointments and re-evaluation within 72-hours post-discharge are arranged. When patient and family needs are considered, post-hospital appointments are scheduled at mutually convenient times. Based on the outpatient care plan developed by the hospitalists and nurse navigators, a transitional care nurse calls patients at home within 72 hours to review their action plan to
report symptoms, assess functional capacity, conduct a virtual medication reconciliation and assure acknowledgement of transition of care appointment.

RESULTS
Heart Failure service line consisting of HF hospitalist, HF Nurse Navigators, and HF clinic has been established for more than 12 months. During this 12-month period, 710 HF patients were seen at one facility in this health care system. Of the 710 HF patients, the HF service cared for 351 (49.4%) of the patients.

At this community-based health care system, HF Hospitalist outcomes when compared to non-HF service include decreased length of stay, 5.4 days vs 6.1 days, respectively.

The team had an impressively lower 30 day all cause readmission, 9% vs 17.49%, which is a 48.5% absolute reduction when compared to non-HF Hospitalist HF admissions, and almost 59% absolute reduction when compared to national HF all cause readmission rates (20 to 25%), during the first 12 months of the service.

Thirty-day heart failure readmission was reduced from 8.06% to 3.13%. All while reducing costs during the first 12 months of the HF Hospitalist service.

Guideline direct medical therapy was
Consistently supported through application of the HF order set. Utilization was 96% compared to all providers at 80%.

Compassionate management of end-of-life HF care was evidenced by the impressive number of Hospice consults for 13.11% of patients seen by the HF hospitalists.

**ADAPTABLEITY**

Since initiation of the HF Hospitalist service line, communication of the team’s daily responsibilities and outcomes have been key to the program’s success. The team makes it a priority to sit down with patients and their families to discuss triggers that cause hospitalizations. Extensive time is spent educating about heart failure, medications, and recognition of early signs and symptoms. Personalized post discharge action plans are developed.

The team reports to the HF committee quarterly, to all cardiology and quality meetings, to medical group provider meetings and to nursing. From inception, it was evident that patients benefitting from this consistent management were admitted to other units. The team needed to expand geographically. In addition, patients known to the service were admitted with diagnoses other than HF and the coordination efforts of the team were requested, hence increasing the team’s census.

About a year into the start of this unique service line dedicated to heart failure patients, the system hired a new advanced HF cardiologist who is also the medical director of the HF program. The team recognized that patient acuity is increasing. With a dedicated HF cardiologist, the HF hospitalists can now refer these patients that may benefit with advance heart failure therapies such as home inotropic infusions, ventricular assist devices and heart transplants.

During the initial 12 months of this program, many lessons have been learned:

- In the community, multidisciplinary engagement, led by the primary care provider, is needed to maintain treatment strategies developed by HF Hospitalist team.
Due to the multiple co-morbidities, such as renal disease, endocrine disease or other advanced forms of heart disease, communication is essential to ensure HF medications and outpatient plans are not confusing to patients.

Anticipating electronic medical record optimization early is beneficial. Delays were noted by team while working to create patient reports and notification methods.

Heart failure is a major health care issue and all medical centers need to develop a plan to tackle its high prevalence, mortality, and cost of care. This organization’s strategy of having a HF hospitalist service line, which maintains continuity of care when patients are admitted to the hospital has shown to be a unique method to not only develop trusting relationships with our patients but also attain impressive results. Future plans include expansion of this service-line to other facilities in our health care system.

SUPPORTING APPENDICES

Appendix A

Documentation Template

Acute on chronic diastolic heart failure (HCC) – (present on admission)

Echocardiogram:
Chief Complaint:
NYHA admission:
NYHA current:
Device:
Etiology for HF exacerbation:
  Compliance with medications:
  Compliance with diet:
HF order set:
BNP on admission:
BNP at discharge:
Admission Weight:
Current Weight:
Diuretic (home medication):
Diuretic (inpatient):
CKD Stage:
Cr trend:
Urine Output in last 24hrs:
NET Output:
Current HF medications:
  -Beta-blocker:
  -ACEI/ARB:
  -Aldosterone Antagonist:
# of Admissions last 6 months:
Social Support:
Hospice Discussion:
TOC Appointment: