

Cardiovascular Analytics, Research + **Data Science** 

# Background

- Palliative care (PC) interventions in patients with advanced heart failure (HF) can improve symptoms and quality of life, while providing an extra layer of support to patients and families<sup>1</sup>.
- Palliative care is significantly underutilized in the heart failure patient population, and when patients do get referred to palliative care it is often late in the disease process<sup>2</sup>.
- Current ACC/AHA Heart Failure Guidelines recommend palliative care as a class I recommendation for patients with symptomatic advanced HF<sup>3</sup>.

# Objective

 We sought to increase PC referrals among patients hospitalized for advanced HF by integrating a HF RN Navigator into the referral process.

# Methods

- An internally developed readmission risk assessment tool (Providence Vulnerability Index (PVI)) was utilized to identify high risk HF patients during their inpatient admission (Figure 1).
- As part of the process for navigating high risk advanced HF patients to appropriate care, a PC provider/HF navigator participated in weekly meetings to assess the HF team's knowledge and comfort level around PC/hospice and patient identification for referral.
- Education about the PVI tool was provided to cardiologists, hospitalists, bedside nurses, case management, and pharmacists.
- A pathway was created to help HF navigator make decisions on PC referrals (Figure 2).
- Face-to-face and Electronic Medical Record (EMR)-based requests for PC referrals were sent to providers for patients meeting defined criteria.
- Data was collected to identify how frequently PC referrals were placed. Discharge plan was collected during Phase 1 only.

### **Phase 1** (June 2017- August 2017)

- Focused on all patients admitted with a PVI score 5 or 6 admitted with any diagnosis.
- HF navigator reviewed charts of high risk HF patients meeting referral criteria and placed an EMR message to the primary inpatient team requesting placement of a PC referral (Figure 3).

#### Phase 2 (July 2018-Oct 2018)

- Focused on patients admitted with a PVI score 5 or 6 admitted with acute decompensated HF who were not undergoing cardiac surgery.
- · Dedicated education was provided by key stakeholders (PC provider, HF hospitalist champion, and HF navigator) to cardiologists, hospitalists, nursing staff, and case management about the PVI/PC referral process for HF patients.
- The PC team adjusted its staffing to accommodate increased in-hospital referrals for HF patients.
- Education and scripting was provided to bedside nurses and RN care management to start PC discussions and encourage ordering of PC when high risk patients were encountered.
- Increased attention was given by the HF navigator to place EMR messages and PC requests during multidisciplinary and cardiology rounds.
- EMR message were customized based on the patient's status and PC needs. Figure 1: PVI Readmission Risk Assessment Variables

Providence Vulnerability Index Variables Used to Assess 30-Day Risk of Readmission (Score range 1-6)\*

- Chronic health score (Charlson Index)
- Medical history
- History of behavioral health problems
- History of substance use
- Number of hospitalizations within the past 90 days
- \*1 = low risk, 6 = very high risk (>40% risk of readmission)

#### **References:**

- 1. Morrison RS, Meier DE. Clinical Practice. Palliative Care. N Engl J Med 2004;350:2582-2590.
- 2. Pantilat SZ, Stemle AE. Palliative care for patients with heart failure. JAMA 2004;291:2476-2482.
- 3 Yancy CW Jessup M Bozkurt B et al. 2017 ACC/AHA/HESA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure J Am Coll Cardiol 2017;70;776-803

# A Nurse Navigator-Driven Program to Increase Palliative Care **Referrals for Advanced Heart Failure Patients**

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#### Figure 2: Sample EMR-based Message Sent to Providers



### Figure 3: Palliative Care Referral Pathway



# Results

- Patients who had an EMR message sent by the HF Navigator had a higher rate of PC orders (Figure 4).
- Patients who had PC consult vs no consult had a appropriate discharge plan (Figure 5).
- Comparing Phase 1 to Phase 2, we saw an overall 27% increase in referrals to inpatient and outpatient PC (Figure 6).
- Identified barriers included gaps in knowledge about PC, comfort in initiating conversations, and lack of time for PC discussions.
- Notable increases in PC referral rates were observed following focused education to providers and clinical staff.

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## Figure 4: Impact of HF Navigator-Initiated EMR Messages to Refer Patients to Palliative Care



# Figure 5: Discharge Disposition of Patients With and Without a Palliative Care Consult



#### Figure 6: Increase in PC Referral from Phase 1 to Phase 2. Percent of cases with PC referral increased, for both HF RN navigator initiated- and provider-initiated referrals.



# Conclusions

• Integrating patient navigators into care processes for HF patients led to improved education about PC and appreciable increases in referrals.

• Education to staff and providers has improved knowledge and culture change around referrals to palliative care. Discussions with patients initiated by the PC team assisted with provider time constraints.