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Congestive heart failure patient education intervention to address 30 day CHF readmission

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BACKGROUND

- Section 3025 of the Affordable Care Act established the Hospital Readmissions Reduction Program, which cuts reimbursement for readmissions within 30 days of discharge.1
- Congestive heart failure (CHF) 30 day readmission rates at FAHC in 2012 approached nearly 22.2% among Medicare patients.2
- Patient education interventions utilizing the “Teach Back” method such as UCSF’s Heart Failure Program have demonstrated success in reducing 30-day readmission rates.3
- Teach Back is an evidence-based method that ensures patient understanding of information by asking patients to explain what they have been told.4,5
- Anderson et al. and Dudas et al. also demonstrated the efficacy of patient education and post-discharge telephone calls in reducing readmission rates for CHF.6

OBJECTIVES

- Through patient education, promote patient understanding of:
  - Congestive heart failure diagnosis
  - Classic symptom presentation of a CHF exacerbation
  - Signs of worsened CHF severity
- Improve patient self-monitoring of CHF and promote post-discharge follow-up with primary care providers
- Through patient education, reduce re-admission rates for CHF
- Assess pre- and post-intervention patient self-efficacy in seeking treatment for CHF exacerbation
- Provide each patient with, or ensure prior receipt of, a FAHC Cardiology Department Heart Failure Journal

METHODS

- Inclusion criteria for participation in intervention:
  - Medicare insurance as either primary or secondary coverage
  - CHF (or CHF variant) listed under “Active Problems” on EHR
  - Admission to any FAHC inpatient unit at the time of intervention
  - CHF (or CHF variant) listed under “Active Problems” on EHR
- Inclusion criteria did not specify CHF as the primary diagnosis and most patients were admitted with an acute on chronic CHF exacerbation or were hospitalized and their underlying disease
- All patients were provided with a heart failure education binder during the intervention
- Assess patient understanding of CHF symptoms management sustained at phone follow-up
- Patient reported understanding of CHF symptoms increased from pre- to post-teach back sessions (Fig. 1)

RESULTS

- 43.6% of patients lost to follow-up which includes a mortality rate of 23.5%
- Of the 8 patients who died within 30 days of discharge, 4 died in the hospital, 2 were discharged to respite or nursing home, 2 died at home
- 68% of patients did not have a PCP appointment at the time of the initial intervention
- Patient reported understanding of CHF symptoms increased from pre- to post-teach back sessions (Fig. 1)
- All patients were provided with a heart failure education binder during the intervention with the exception of one patient who had received the journal beforehand
- SOB required the most educational time and edema required the least
- Confidence of CHF symptoms management sustained at phone follow-up

LESSONS LEARNED

- Teach-back has positive impact on improving understanding of CHF symptom management
- Patients do not consistently receive education on how to effectively manage and understand their symptoms
- While the current readmission rate was greater than the existing FAHC rate, our data analysis did not include a risk adjustment
- While most patients have a PCP, the majority did not schedule a follow up appointment. Lack of follow-up has been shown to contribute to higher readmission rates

LIMITATIONS

- Inclusion criteria did not specify CHF as the primary diagnosis and most patients were admitted with an acute on chronic CHF exacerbation or an unrelated cause
- Loss of follow-up due to inability to contact the patient or reported death was an obstacle to completing data collection
- Cognitive impairments during the teach back were not assessed
- Participant variability in disease severity and time course

REFERENCES


DISCUSSION

- Barriers to patient management of congestive heart failure include limited post-discharge patient follow-up
- Patient understanding of signs and symptoms of an acute on chronic CHF exacerbation is critical in reducing 30 day re-admission rates
- Given the fluctuation of symptoms in chronic illness, patients may not understand the relationship between the acute illness for which they are hospitalized and their underlying disease
- Administrative barriers to implementing patient education interventions and consistent use of standardized discharge procedures
- In the future, there is a need to enhance patient provision of the heart failure journal and promote PCP follow-up appointment

Figure 1. Pre and post-intervention patient self-efficacy
NOTE: the mode comfort level Pre-Intervention was “somewhat comfortable”. At conclusion of the intervention, the mode comfort level increased to “mostly comfortable”.
This increase was sustained at the two-week follow-up.

Figure 2. Total number of times teach-back was required: Note: all other facts exhibited a similar profile. Mode number of teach backs for all was 1.

Figure 3. Heart failure zones taken from FAHC Heart Failure Journal