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

James M. Jeffords Institute for Quality and Operational Effectiveness at FAHC
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Project Mentor and Agency Representative - Dr. Ted James, MD, Dr. William Hopkins, MD, Lori Notowitz, RN

BACKGROUND
- Inclusion criteria for participation in intervention:
  - Medicare beneficiaries as either primary or secondary coverage
  - CHF (or CHF variant) listed under “Active Problems” on EHR

- Patient education interventions utilizing the Teach Back method such as UCSF’s Heart Failure Program have demonstrated success in reducing 30-day readmission rates.
- Teach Back is an evidence-based method that ensures patient understanding of information by asking patients to explain what they have been told.
- 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.

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 beneficiaries 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
  - Patient consent for the two distinct phases of the project

- Teach back oriented intervention completed with a convenient sample of CHF patients admitted to FAHC
  1. Pre-discharge educational component to promote patient understanding of edema, weight gain and shortness of breath based on the recommendations outlined in the Heart Failure Journal (Fig. 3)
  2. Follow-up telephone call two weeks following discharge

RESULTS
- 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 initial intervention with the exception of one patient who had received the journal beforehand
- SOB required the most educational time and edema required the least (Fig. 2)
- Confidence of CHF symptoms management sustained at phone follow-up: 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
- Raw readmission data excluding deaths within 30 days of discharge was 50% compared to the FAHC adjusted rate of 21.3%
- 68% of patients did not have a PCP appointment at the time of the initial intervention

LESSONS LEARNED
- For all included patients, knowledge retention from the intervention was high, with a 90% readmission rate.
- 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 self-management strategies and symptom management

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