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

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 inpatient education and post-discharge telephone calls in reducing readmission rates for CHF.⁶⁻⁷

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
 - 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

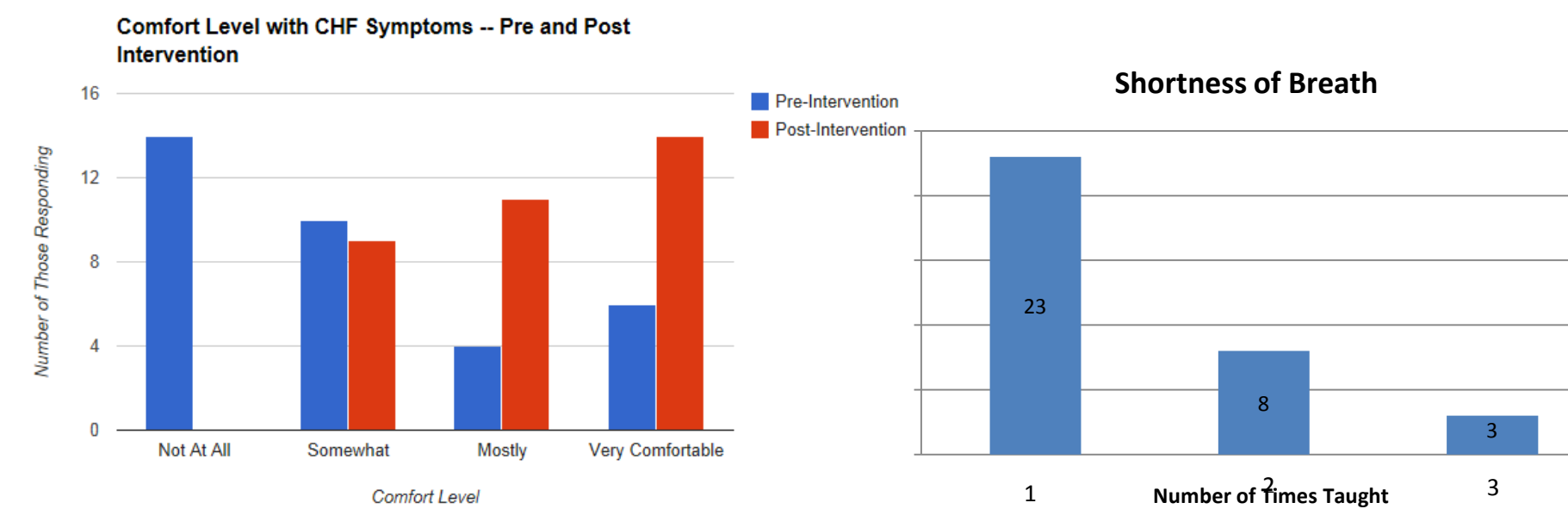


Figure 1. Pre and post-intervention patient self-efficacy
NOTE: the mode comfort level Pre-Intervention was "somewhat comfortable". At the conclusion of the intervention, the mode comfort level increased to "mostly comfortable". This increase was sustained at the two-week follow-up.

- ❖ 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

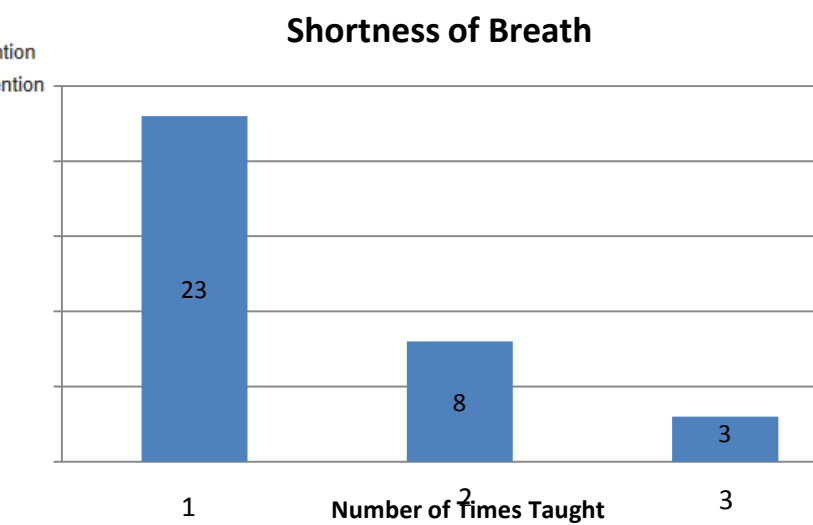


Figure 2. Total number of times teach-back was required
NOTE: all other facts exhibited a similar profile. Mode number of teach backs for all were 1.

DISCUSSION

- ❖ 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

LESSONS LEARNED

- ❖ Barriers to patient management of congestive heart failure include limited post-discharge patient follow-up
- ❖ Patient awareness of the 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 exist 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

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

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HEART FAILURE ZONES

Which Heart Failure Zone are you today? GREEN, YELLOW or RED?

EVERY DAY	<p>EVERY DAY:</p> <ul style="list-style-type: none"> • Weigh yourself in the morning before breakfast, write down and compare to yesterday's weight. • Take your medicine as prescribed. • Check for swelling in your feet, ankles, legs and stomach. • Eat low-salt food. • Balance activity and rest periods. 	YELLOW ZONE	<p>CAUTION – This zone is a warning</p> <p>Call your doctor's office if:</p> <ul style="list-style-type: none"> • You have a weight gain of 3 pounds in 1 day or a weight gain of 5 pounds or more in 1 week. • More shortness of breath. • More swelling of your feet, ankles, legs or stomach. • Feeling more tired. No energy. • Dry, hacking cough. • Dizziness. • Feeling uneasy, you know something is not right. • It is harder for you to breathe when lying down. You are needing to sleep sitting up in a chair.
GREEN ZONE	<p>GREEN ZONE – This is your goal</p> <p>Your symptoms are under control. You have:</p> <ul style="list-style-type: none"> • No shortness of breath. • No weight gain more than 2 pounds. (it may change 1 or 2 pounds some days). • No swelling of your feet, ankles, legs or stomach. • No chest pain. 	RED ZONE	<p>EMERGENCY</p> <p>Go to the emergency room or call 911 if you have any of the following:</p> <ul style="list-style-type: none"> • Struggling to breathe. Unrelieved shortness of breath while sitting still. • Have chest pain. • Have confusion or can't think clearly.

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