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## Follow Up Care For Heart Failure Patients And Association With Hospital Readmission

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## **Follow-up Care for Heart Failure Patients and Association with Hospital Readmission**

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### Background:

The CDC reports 6.5 million adults in the US have Heart failure (HF) with yearly costs topping 30 billion. HF patients admitted to Valley Baptist (VB) are readmitted 26% of the time, which is close to the national average of 23% (1). Standard of care for HF patients is remote nursing care for 30 days from discharge. A hospitalization for any reason within 30 days is considered a "readmission". On October 1, 2019 at VB, remote nursing care changed from weekly house visits to one house visit within a week of discharge from hospital plus weekly phone calls. The aim of the study is to evaluate the effectiveness of this policy change on readmission rates.

### Methods:

We performed a retrospective chart review using all patients admitted with HF from August 1, 2019 to January 31, 2020 at VB. A final sample of 170 patients was collected. Descriptive statistics were created overall and stratified by readmission. Binary logistic regression was used to assess the association with readmission and time to admission.

### Results:

The average age of patients was 68.8 years with the mean length of stay of 5.5 days. During hospital stay, 54.1% (92/170) of all patients received HF education before discharge. 18.5% of those who received the education had it through a HF educator in the Progressive Coronary Care Unit (PCCU) versus 26.1% of those who received it from their primary nurse were readmitted ( $p = 0.43$ ).

Readmission rates were 31.7 % with remote nursing care with weekly house visits and 19.3% after the change to weekly phone calls ( $p = 0.0633$ ). There was no evidence FU Care produces a disparity in readmission rates after adjustment (in-home visits vs phone calls) OR = 1.75 ( $p = 0.1363$ ).

### Conclusions:

As a limitation for our analysis, we were unable to determine if CHF severity determined what patients received hospital education from skilled nursing staff which could have introduced

selection bias. Readmissions were more prevalent in the house-visits population versus phone-call follow up. Our study supports the change in FU care as it produced no disparity in readmission rates, which may result in lower costs to FU care with new policy.

### Simple Descriptive Statistics – By Readmission

	Readmission = No n=127					Readmission = Yes n=43				
	Minimum	Maximum	Mean	Median	SD	Minimum	Maximum	Mean	Median	SD
<b>Age</b>	24	94	69.7	73	14.6	27	91	66.4	66	15.4
<b>Length of Stay (LOS)</b>	1	46	5.9	4	5.4	0	12	4.4	4	3.0
	Class	n (%)				Class	n (%)			
<b>FU Protocol</b>	In Person Phone	71 (55.9) 56 (44.1)				In Person Phone	17 (39.5) 26 (60.5)			
<b>HF Education In Hospital</b>	No Yes	57 (44.9) 70 (55.1)				No Yes	21 (48.8) 22 (51.2)			
<b>HF educator (In Hospital) *</b>	No Yes	48 (68.6) 22 (31.4)				No Yes	17 (77.3) 5 (22.7)			

\*only calculated for those who received education in hospital; SD= standard deviation, FU = follow-up

### References

1. Khera, R., et al., Evaluation of 30-day hospital readmission and mortality rates using regression-discontinuity framework. Journal of the American College of Cardiology, 2019. 74(2): p. 219-234.

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