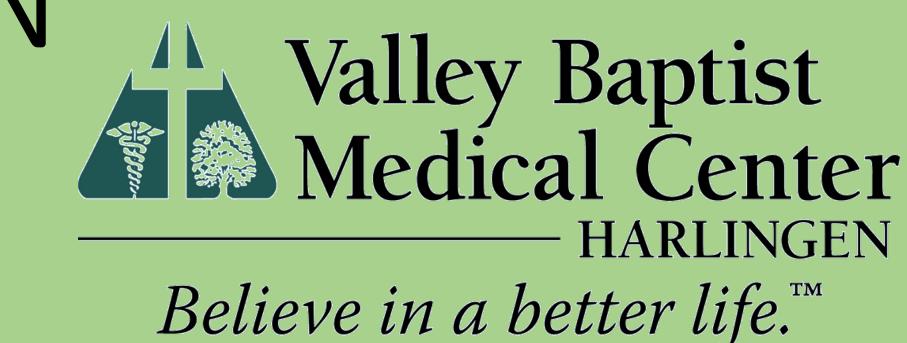


# FOLLOW UP CARE FOR HEART FAILURE PATIENTS AND ASSOCIATION WITH HOSPITAL READMISSIONS



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## Background

Heart Failure patients admitted to Valley Baptist (VB) are readmitted 26% of the time, which is close to the national average of 23%. The Standard of care for HF patients is follow up care (FU) for 30 days from discharge. Hospitalization for any reason within 30 days is considered a "readmission". On 10-1-2019 at VB, remote nursing care changed from weekly house visits to weekly phone calls. The aim is to evaluate the effectiveness of this policy change on readmission rates.

### Methods

Retrospective chart review using 170 patients admitted with HF from 8-1-2019 to 1-31-2020 at VB. Descriptive statistics [mean (SD) and n (%)] were created overall and stratified by readmission. Binary logistic regression assessed the association with readmission and time to admission.

Table 1A: Simple Descriptive Statistics - Overall

Variable	min	Max	Mean	Med	SD
Age	24	94	68.8	72.5	14.8
Length of Stay (LOS)	0	46	5.5	4	4.9
Variable	Class	n (%)			
Readmission	No Yes	127 (74.7) 43 (25.3)			
Follow-Up Protocol	In Person Phone Follow up	88 (51.8) 82 (48.2)			
HF Education in Hospital	No Yes	78 (45.9) 92 (54.1)			
Nurse Education (In Hospital) *	No Yes	65 (70.7) 27 (29.4)			

<sup>\*</sup>only calculated for those who received education in hospital

Table 1B: Simple Descriptive Statistics - By Readmission

	Re	eadmissior n=127					Readmiss n=		es.	
Var	min	Max	Mean	Med	SD	min	Max	Mean	Med	SD
Age	24	94	69.7	73	14.6	27	91	66.4	66	15.4
Length of Stay (LOS)	1	46	5.9	4	5.4	0	12	4.4	4	3.0
Var	Class	n (%)				Class	n (%)			
FU Protocol	In Person Phone Follow up	71 (55.9) 56 (44.1)				In Person Phone FU	17 (39.5) 26 (60.5)			
HF Education In Hospital	No Yes	57 (44.9) 70 (55.1)				No Yes	21 (48.8) 22 (51.2)			
Nurse Education (In Hospital) *	No Yes	48 (68.6) 22 (31.4)				No Yes	17 (77.3) 5 (22.7)			

<sup>\*</sup>only calculated for those who received education in hospital; FU = follow-up

Table 2 - Readmission Rates by Follow-Up Protocol

Follow Up	Re	Readmission			
Follow-Up	No	Yes	Total		
Phone Calls (Oct 1 or Later)	71 (80.7 )	17 (19.3 )	88		
In-Home Visits (Before Oct 1)	56 (68.3 )	26 (31.7 )	82		
Total	127	43	170		
-value =0.0633		1			

#### Results

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

#### Conclusion

The FU change produced no disparity in readmission rates, which may result in lower costs to FU with the new policy. In-home visits were more prevalent with re-admissions than phone calls. CHF severity likely determined who received in-hospital education from skilled nursing staff which could have introduced selection bias.