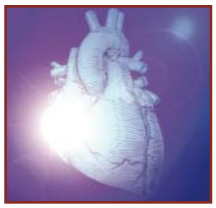

Association of Partner Status and Disposition With Rehospitalization in Heart Failure Patients

By Jill Howie-Esquivel, RN, PhD, NP, and Joan Gygax Spicer, RN, PhD, CCM

Background Sociodemographic variables that are predictors of rehospitalization for heart failure may better inform hospital discharge strategies.

Objectives (1) To determine whether sociodemographic variables are predictors of hospital readmission, (2) to determine whether sociodemographic or laboratory variables differ by age group as predictors of readmission, and (3) to compare whether patients' discharge disposition differs by age group in predicting readmission.

Methods Retrospective chart review of hospitalized patients with heart failure admitted in 2007.

Results Mean age was 68 (SD, 17) years for the 809 patients, with slightly more than one-third (n = 311, 38%) reporting a legal partner. Fewer than half (n = 359, 44%) were white. Almost one-third (n = 261, 32%) were rehospitalized within 90 days. Multivariable analysis revealed that patients younger than 65 years old and not partnered were at 1.8 times greater risk for being readmitted 90 days after discharge ($P = .02$; 95% CI, 0.33-0.92). Patients who were 65 years and older and not partnered were at 2.2 times greater risk for readmission ($P = .01$; 95% CI, 0.25-0.85) after creatinine level and discharge disposition were controlled for. For older patients discharged to home or to home with home services, the risk of readmission was 2.6 times greater than that for patients discharged to a skilled nursing facility ($P = .02$; 95% CI, 1.20-5.56).

Conclusions The absence of a partner was predictive of readmission in all patients. Older patients with heart failure who were discharged to a skilled nursing facility had lower readmission rates. The effect of partner and disposition status may suggest a proxy for social support. Strategies to provide social support during discharge planning may have an effect on hospital readmission rates. (*American Journal of Critical Care.* 2012;21(3):e65-e73)

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More than 2 decades have passed since Vinson and colleagues[1] did their insightful study examining "remediable factors contributing to readmission" in elderly patients with heart failure. They stated that the diagnosis of heart failure accounted for $8 billion or up to one-fourth of all inpatient Medicare expenditures.[1] In 2010, the costs of health care expenditures for heart failure have escalated to $39 billion, or more than 4 times the cost in past decades.[2] Readmission for heart failure remains a burdensome and challenging problem, with one-third of Medicare beneficiaries experiencing readmission within 90 days of discharge.[3]

Vinson and colleagues[1] reported factors that contribute to preventable readmissions: inadequate discharge planning and follow-up (35%), noncompliance (with medication and diet, 33%), failure to seek medical help (20%), and failed social support (21%). That study identified variables that expanded beyond physiological factors as predictors of hospital readmissions, in particular failed social support. We wanted to further understand sociodemographic variables, especially as they relate to social support in hospital readmission. In addition, we wanted to compare sociodemographic predictors of readmission between patients less than 65 years old and patients 65 years and older.

Knowledge about predictors of readmission and planning for successful discharge to home alone, with support, or to a skilled nursing facility may require different approaches for younger versus older patients. Social support systems at home for older patients may be fewer or more complicated as spouses or relatives may also have chronic health problems.[4] Younger patients with heart failure may have spouses or family members whose employment responsibilities prevent caregiving activities. Further, we looked at several known laboratory values that are associated with poorer outcomes in patients with heart failure and wanted to test their significance in relation to sociodemographic factors.[5-12] Therefore, the aims of this study were to (1) determine whether sociodemographic variables are predictive of hospital readmission, (2) determine whether sociodemographic or laboratory variables differ by age group as predictors of readmission, and (3) compare whether patients' discharge disposition differs by age group in predicting readmission.

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Methods

Setting and Patients

Patients admitted to the University of California, San Francisco, Medical Center with a primary or secondary diagnosis of heart failure during the 2007 calendar year were included in the study. Patients were 21 years and older and admitted to either the cardiology or general medical service. We completed a retrospective chart review by using the electronic medical record. The Committee on Human Research approved the study in accordance with the Declaration of Helsinki of 1975. Data were collected in January 2009. We examined all patients more than 21 years old and then compared patients less than 65 with patients aged 65 years and older. The decision to split the sample at age 65 was in part arbitrary. However, this age group is a current focus of the Centers for Medicare and Medicaid Services because they account for a high consumption of health care resources and costs.

> One-third of heart failure admissions of Medicare beneficiaries are readmitted within 90 days of discharge.

Measurements

Sociodemographic and Laboratory Characteristics. Age, sex, ethnicity, and partner status were recorded for all participants. Partnered was defined as married or having a registered domestic partner. Ethnicity was categorized as African American/black, Caucasian/white, Hispanic/Latino, and Asian/Pacific Islander. Data obtained also included need for interpretation services, smoking in the past year, presence of advance directives, use of rehabilitation services,

length of stay in the hospital and intensive care unit, and discharge disposition for all patients. Discharge disposition was categorized as skilled nursing facility, home, and home with home health services (nursing, hospice, or physical therapy). All patients who were discharged to a lower level of licensed inpatient care were categorized into the facility group. Laboratory data included the last measured serum levels of hemoglobin, creatinine, sodium, and brain natriuretic peptide (BNP) before discharge (within 3 days) during the index hospitalization. Rehospitalization within 90 days was determined by the authors according to date of discharge for the index hospitalization.

A retrospective chart review using the electronic medical record was completed.

Statistical Analysis

Data were analyzed by using SPSS for Windows software (version 15.0, IBM SPSS, Armonk, New York). Descriptive statistics were used to present demographic and clinical characteristics of the subjects. Data were analyzed by using χ^2 tests for categorical data and independent *t* tests for continuous data to compare differences between age groups. The relationships among variables were tested to identify variables associated with readmission. Multiple regression analyses were then conducted with testing for distribution of data. The assumptions of multiple logistic regression analysis were checked. Candidate variables were selected for inclusion in each regression model on the basis of their significance in univariate analyses ($P < .10$) or their theoretical relevance. After constructing multiple regression models with selected variables, the significance level of each independent variable was assessed. We have quantified the number of values for each laboratory variable within the tables. We handled missing values by including only the data we collected, rather than by using statistical means to adjust for missing data. Although there is less power with a smaller sample of laboratory data, we thought that this was a more conservative approach. Significance was defined as a *P* value less than .05, and data are presented as means (standard deviations) where appropriate.

Numbers of males and females were almost equal and about one-third had partners.

Results

Sociodemographic Characteristics

During the 2007 calendar year, 881 patients were admitted to the medicine or cardiology service for a primary or secondary diagnosis of heart failure. For the purposes of this study, 72 patients were removed from the analysis because they died during the index hospital admission and had no opportunity for readmission.

Of the total group (N = 809), almost equal numbers of male (53%) and female patients were admitted (Table 1). Slightly more than one-third (38%) were partnered, and less than half (44%) were white. More than half were admitted to the cardiology service (61%), 15% needed an interpreter, and 12% reported smoking in the past year despite ongoing cardiac problems. One-third (33%) required therapy with rehabilitation services, and the majority (83%) were discharged to home or to home with home care services. The mean length of stay was 6 days, but there was a large standard deviation (7.8), indicating a wide range (1-87 days) in length of stay. The median length of stay was 3 days. Almost one-third (32%) were readmitted within 90 days.

Sociodemographic and Clinical Characteristics by Age Group

Demographic and clinical features of patients younger than 65 years were compared with those of patients 65 years and older (Table 1). In the group aged less than 65 years, significantly more were male (n = 196, 60%, $P < .001$), African American (n = 104, 32%, $P = .03$), and did not require an interpreter (n = 223, 69%, $P < .001$). Significantly more patients with heart failure in the younger group reported smoking in the past year (n = 72, 22%, $P < .001$) and were discharged home or home with home health services (n = 290, 90%, $P < .001$). The mean length of stay was significantly longer for the younger patients with heart failure at 6.9 vs 5.5 days ($P = .02$). No significant difference was found in the number of advance directives between the younger and the older groups, and similar numbers of readmissions were experienced by each age group (34% vs 31%, $P = .60$) within 90 days of discharge.

The group aged 65 years and older was more multilingual and thus required more interpreter support. Few patients reported smoking in the past year. The older patients were more often discharged to a skilled nursing facility, and well over one-third required rehabilitation services. Although there were equal numbers of advance directives in each age group, significantly more patients 65 and older ($P < .001$) had do-not-resuscitate orders.

Sociodemographic Characteristics of Patients Readmitted and Not Readmitted by Age Group

Readmission rates were compared between patients less than 65 years old and patients 65 years

Table 1
Demographic and clinical characteristics by age

Characteristic	No. (%) of patients[a]			
	Total group (N = 809)	Group <65 years old (n = 324)	Group ≥ 65 years old (n = 485)	*P* (CI)
Age, mean (SD), y	68 (17)	51 (11)	80 (8)	
Male	425 (53)	196 (60)	229 (47)	<.001
Partnered	311 (38)	114 (35)	196 (40)	.42
Ethnicity/race				
White	359 (44)	123 (38)	236 (49)	.49
Asian/Pacific Islander	168 (21)	36 (11)	132 (27)	
African American	166 (21)	104 (32)	62 (13)	
Other	113 (14)	58 (18)	53 (11)	
Needs interpreter	124 (15)	23 (7)	101 (21)	.001
Cardiology service	496 (61)	223 (69)	273 (56)	.001
Medical service	313 (39)	101 (31)	212 (44)	
Do-not-resuscitate orders	67 (8)	5 (2)	62 (13)	.001
Smoked in past year	95 (12)	72 (22)	23 (5)	.001
Advance directive	557 (69)	13 (4)	15 (3)	.56
Rehabilitation charges	265 (33)	75 (23)	190 (39)	.001
Disposition				
Facility	139 (17)	34 (10)	105 (22)	.001
Home or home with home health	670 (83)	290 (90)	380 (78)	
Length of stay, mean (SD), d	6.1 (7.8)	6.9 (8.9)	5.5 (7.0)	.02
No. of days in intensive care unit, mean (SD)	1.0 (3.8)	1.5 (5.2)	0.6 (2.2)	.01
Readmitted within 90 days	261 (32)	109 (34)	152 (31)	.60

[a]Values are number (percentage) of patients unless otherwise noted in first column.

old or older (Table 2). Patients 65 years or older who were not white showed a trend toward greater risk for readmission ($P = .08$). Older patients who smoked in the past year also showed a trend toward greater readmission risk, but there were few older patients who smoked. The absence of a partner was significantly associated with readmission in patients younger and patients older than 65 years ($P = .02$).

Laboratory Characteristics of Patients Less Than 65 Years Old vs Patients 65 Years and Older

In patients less than 65 years old, the last mean hemoglobin level measured during hospitalization was 12.3 (SD, 2.3) g/dL, indicating anemia; mean level of BNP was 832 (SD, 1043) pg/mL; and mean serum level of creatinine was 2.0 (SD, 2.4) mg/dL, indicating chronic renal insufficiency (Table 3). In patients 65 years and older, last mean serum hemoglobin level was 11.6 (SD, 1.6) g/dL, indicating significantly ($P < .001$) more severe anemia than found in the younger patients with heart failure. In patients who were 65 years old or older, mean level of BNP was 828 (SD, 979) pg/mL ($P = .97$); and mean serum level of creatinine was 1.5 (SD, 1.0) mg/dL, indicating mild chronic renal insufficiency, but significantly better renal function than in the younger patients with heart failure ($P = .002$). Significantly lower sodium values were found in the younger age group, but these values are within the normal laboratory range. Not all patients had each laboratory test assessed on index admission, so missing values were present for each laboratory variable (Table 3).

Laboratory Characteristics of Patients Readmitted and Not Readmitted Compared Between Patients Younger Than 65 Years and Patients 65 Years or Older

In patients less than 65 years old, level of BNP was the only laboratory variable that was significantly higher in patients who had a hospital readmission ($P = .04$). In patients 65 years and older, serum level of creatinine was the only laboratory variable that was significantly higher in patients who had a hospital readmission ($P = .02$; Table 4).

Table 2
Characteristics of patients readmitted and not readmitted by age (N = 809)

Characteristic	Group <65 years old			Group ≥ 65 years old		
	Readmitted[a] (n = 109)	Not readmitted[a] (n = 215)	*P* (CI)	Readmitted[a] (n = 152)	Not readmitted[a] (n = 333)	*P* (CI)
Male	68 (62)	128 (60)	.63 (0.70-1.80)	75 (49)	154 (46)	.56 (0.80-1.70)
Partnered	29 (27)	85 (40)	**.03** (0.34-0.91)	51 (34)	145 (44)	**.03**
Ethnicity/race			.49			.08
White	42 (39)	81 (38)		69 (45)	167 (51)	
Asian/Pacific Islander	14 (13)	22 (10)		37 (24)	95 (29)	
African American	30 (28)	74 (35)		28 (18)	34 (55)	
Other	23 (21)	35 (17)		18 (12)	35 (11)	
Needs interpreter	8 (7)	15 (7)	1.0 (0.43-2.60)	27 (18)	74 (22)	.29 (0.46-1.23)
Cardiology vs medical service	70 (64) 39 (36)	153 (71) 62 (29)	**.02** (0.84-2.20)	88 (58) 64 (42)	185 (56) 148 (44)	.69 (0.61-1.30)
Do-not-resuscitate orders	2 (2)	3 (1)	1.0 (0.21-8.00)	15 (10)	47 (14)	.24 (0.36-1.20)
Smoked in past year	24 (22)	48 (22)	.72 [b]	11 (7)	12 (4)	.14 [b]
Rehabilitation charges	27 (25)	48 (22)	.68 (0.67-1.96)	65 (43)	125 (38)	.31 (0.84-1.80)
Disposition						
Facility	9 (8)	25 (12)	.45 (0.65-3.20)	26 (17)	79 (24)	.12 (0.92-2.40)
Home or home with home health care	100 (92)	190 (88)				
Length of stay, mean, (SD), d	6.4 (7.0)	7.2 (9.7)	.30 (-0.67-2.10)	6.0 (7.5)	5.3 (6.7)	.37 (-2.70-1.00)
No. of days in intensive care unit, mean (SD)	0.98 (3.0)	1.68 (6.10)	.17 (-0.60-0.12)	0.45 (1.5)	0.69 (2.5)	.17 (-1.70-0.29)

[a]Values are number (percentage) of patients unless otherwise noted in first column.
[b]Cannot be computed because of small n.

Table 3
Laboratory characteristics by age

Characteristic	Total group (N = 809)	Group < 65 years old	Group ≥ 65 years old (n = 485)	*P* (CI)
Hemoglobin, mean (SD), g/dL (n = 487)	11.9 (2.0)	12.3 (2.3)	11.6 (1.6)	<.001 (0.37-1.11)
Creatinine, mean (SD), mg/dL, (n = 488)	1.8 (1.8)	2.0 (2.4)	1.5 (1.0)	.002 (0.19-0.87)
Sodium, mean (SD), meq/L (n = 488)	137 (3.4)	136 (3.2)	138 (3.5)	<.001 (2.24-1.05)
Brain natriuretic peptide, mean (SD), pg/mL (n = 501)	830 (1000)	832 (1043)	828 (979)	.97 (-180-187)

Table 4
Laboratory characteristics of patients readmitted and not readmitted

	Group < 65 years			Group ≥ 65 years		
	Readmitted (n = 109)	Not readmitted (n = 215)	*P* (CI)	Readmitted years (n = 152)	Not readmitted (n = 333)	*P* (CI)
Hemoglobin, mean (SD), g/dL (n = 260)	12.2 (2.2)	12.3 (2.4)	.65 (-0.80-0.50)	11.6 (1.7)	11.6 (1.6)	.97 (-0.48-0.46)
Creatinine, mean (SD), mg/dL (n = 260)	2.0 (2.2)	2.0 (2.5)	.97 (-0.68-0.65)	1.8 (0.9)	1.4 (1.0)	.02 (0.06-0.60)
Sodium, mean (SD), mEq/L (n = 260)	136 (3.3)	136 (3.1)	.34 (-0.45-1.30)	137 (3.7)	138 (3.4)	.51 (-1.36-0.67)
Brain natriuretic peptide, mean (SD), pg/mL (n = 309)	1020 (1238)	712 (880)	.04 (6.1-610)	942 (1019)	773 (957)	.17 (-70-407)

Sociodemographic, Laboratory, and Disposition Analysis

In the multivariable analysis for patients at least 65 years old (Table 5), patients who were not partnered were at 2.2 times greater risk for being readmitted in 90 days ($P = .01$; 95% CI, 0.25-0.85) after creatinine level and discharge disposition were controlled for. Older patients whose last serum level of creatinine was elevated were at greater risk for readmission. For example, for every 1.0 mg/dL increase in serum level of creatinine, there was a 1.3 times greater risk for readmission ($P = .04$; 95% CI, 1.02-1.74). If a patient was discharged with a serum creatinine level of 3.0 mg/dL, their risk of readmission was 2.6 times greater than patients with a serum creatinine level of 1.0 mg/dL. For patients discharged to home or to home with home health services, the risk of readmission was 2.6 times greater than that for patients discharged to a skilled nursing facility ($P = .02$; 95% CI, 1.20-5.56).

In the multivariable analysis for patients less than 65 years old (Table 6), the only variable that was a predictor of readmission was partner; patients who were not partnered were at 1.8 times greater risk for being readmitted in 90 days ($P = .02$; 95% CI, 0.33-0.92).

Table 5
Predictors of readmission in patients 65 years and older within 90 days

Predictor	B	SE	*P*	Exp(B)	95.0% CI
Partnered	-0.786	0.315	.01	0.456	0.246-0.845
Last creatinine	0.288	0.137	.04	1.334	1.020-1.745
Disposition to home	0.952	0.390	.02	2.591	1.207-5.562
Constant	-1.939	0.412	<.001	0.144	

Table 6
Predictors of readmission in those younger than 65 years within 90 days

Predictor	B	SE	*P*	Exp(B)	95.0% CI
Partnered	-0.590	0.258	.02	0.554	0.335-0.919
Constant	-0.486	0.142	.001	0.615	

Discussion

The major findings of this analysis are (1) partner status was a predictor of rehospitalization in younger and older patients with heart failure, (2) older patients with heart failure had greater risk for rehospitalization if they were discharged to home or home with home services and if their serum creatinine levels were elevated, and (3) the absence of a partner was the only predictor of hospital readmission in patients with heart failure who were less than 65 years old. This study is unique because it identifies partner status and hospital disposition as possible social support proxies for prediction of rehospitalization in patients with heart failure.

Effect of Partner Status

We found that younger patients with heart failure who were unpartnered were at higher risk for readmission. Discharge to a skilled nursing facility may not be appropriate or acceptable to younger patients with heart failure, but provision of support at home, especially for the unpartnered patient, appears important. In addition, smoking cessation in younger patients needs more focused intervention and follow-up after discharge.

Similar to the younger patients, we found that older unpartnered patients with heart failure were

more at risk for readmission. Older patients with heart failure were more often discharged to a skilled nursing facility or provided with home health services. However, most older patients with heart failure were unpartnered. Findings from our study suggest lack of partnering is a powerful determinant of readmission, but what qualities, in particular, the partner provides is not known. Can discharge planning play a role in providing a safety net for unpartnered patients?

Lack of partnering is a powerful determinant of hospital readmission.

Chin and Goldman[13] examined correlates of early hospital readmission in patients with heart failure and found an increased risk of hospital readmission in unmarried patients (hazard ratio, 2.1; 95% CI, 1.3-3.3). The authors suggested that marital status may be a proxy for social support. Likewise, sociodemographic variables that were predictive of poor outcomes after discharge in hospitalized elders was studied by Roe-Prior and colleagues.[14] Patients admitted to 2 urban hospitals were followed for 90 days after hospital discharge. Marital status was found to be a significant predictor of hospital readmission in the adjusted analysis. The authors state that married elders may benefit from spousal reminders to follow their treatment regimen.

Marital status was a predictor for risk of hospital readmission at 30 days in a study completed by Amarasingham et al.[15] However, they divided their sample into 2 groups, one with patients at least 45 years old and the other with patients less than 45 years old, making it impossible for us to compare our findings with theirs. What we do find important in our study is that regardless of age, partner status influences risk for readmission. Therefore, the effect of a partner is an important consideration in all adult patients with heart failure.

Social network was described as a predictor for hospital readmission in older patients with heart failure in Spain.[16] Social network was defined by using a 4-item questionnaire where 1 item identified whether subjects were married or not. Marital status provided a higher social network, and higher social network was associated with lower hospital readmissions (hazard ratio, 1.98; 95% CI, 1.07-3.68).[16] More research regarding the effect of partnering would provide a better understanding of the key ingredient in this complex variable that has been referred to in the context of a social factor,[13] social network,[16,17] and social support.[17]

What qualities, in particular, the partner provides is not known.

Effect of Discharge Disposition Status

In older patients with heart failure, we found that patients discharged to a skilled nursing facility had lower readmission rates than did patients discharged to home or to home with home health services. Lower readmission rates in patients with heart failure discharged to a skilled nursing facility were also demonstrated in a large cohort study.[18] Additionally, the authors of this large study reported lower readmission rates in patients discharged with home health services, although this was not a finding in our study. In our study, patients discharged with home health services did not have a lower readmission rate ($P = .20$). Comparatively, results from a study that examined living status indicate that patients with heart failure who were discharged to a nursing home had fewer readmissions than did patients living with family members.[19] It could be speculated that nursing homes provide a skilled level of care where readmissions may be averted. We speculate that both the effects of partner and discharge disposition status may represent proxies for social support.

In contrast, Allen and colleagues[20] reported an increase in readmissions at 30 days and 1 year from patients with heart failure who were discharged to a skilled nursing facility. This result is in contrast to our findings. However, our population of patients was younger, less female, and more ethnically diverse. Our all-cause readmission rate is a 90-day rate with a smaller sample size. Because our populations are different and readmission time frames are different, it is difficult to compare the studies side by side. We suggest that these findings may be different because the older and more female population in the study by Allen et al[20] may have been farther into their disease trajectory, necessitating subsequent hospital care and readmission. Older age and female sex are known to increase risk for rehospitalization. Mor and colleagues[21] examined patients with heart failure in a Medicare Patient Advisory Commission database without reporting demographic data. Rates of readmission to skilled nursing facilities varied widely by demographic location. Because we do not know the sex, ethnicity, or age data for the group, we cannot compare the findings from the study by Mor et al[21] with our study findings.

Effect of Laboratory Values

Laboratory data by group were compared and serum level of creatinine was predictive of hospital readmission in older patients with heart failure despite the mean values being lower than those in younger patients with heart failure. This finding is consistent

with prior studies[9] among patients older than 64 years who had heart failure, where a serum creatinine level greater than 2.5 mg/dL at discharge was predictive of readmission within 6 months. Younger patients with heart failure were not compared. Comparable to our findings, investigators reported increased 30-day readmission rates in association with elevated serum level of creatinine at discharge.[9]

BNP values were not predictive of readmission in our study. This finding is not consistent with results reported for several other studies.[12,22,23] We found that mean BNP values were high with large standard deviations in both the older and younger patients with heart failure. The inconsistency of our findings with other reported findings may be related to several factors. First, our BNP values were higher than reported in most other studies, making comparisons with our group challenging. The large standard deviation also posed problems in analysis, suggesting that a larger sample size may have been more helpful in determining whether BNP was predictive in younger patients with heart failure because the univariate analysis was significant. Indeed, of the 809 patients included in this study, only 501 patients had BNP values measured during their index hospitalization. In addition, not all BNP values were obtained at the time of discharge.

Limitations

Several limitations of the present study should be noted. First, the study was descriptive and a retrospective chart review. Second, the study was undertaken at 1 academic tertiary medical center in the Western United States. A secondary data analysis and a 1-center study have limited generalizability and problems involving selection bias. Third, all-cause readmissions were analyzed in this study versus readmissions related only to heart failure. (Data on rehospitalization in outside hospitals were not available). However, all-cause readmission rates do illustrate the complexity of managing patients with multisystem organ disease. Isolating readmissions caused by heart failure does not fully capture the interdependency of causes for heart failure admission versus admission for other causes. Fourth, we also included patients admitted for a primary or secondary diagnosis of heart failure. This is because management of heart failure would be required as part of the patient's treatment in the case of a primary or secondary admitting diagnosis of heart failure. For example, patients with exacerbations of chronic obstructive pulmonary disease often have an exacerbation of their heart failure that requires stabilization and treatment. Including primary and secondary diagnostic codes assured us that we had captured the majority of the patients who were treated for heart failure in our institution during this time period. Fifth, missing laboratory values may have influenced the findings. The findings of this study must be interpreted with caution. Future longitudinal research is needed to confirm the relationships found with the effect of social support.

Conclusion

Patients who were not partnered were more at risk for readmission, irrespective of age. Sociodemographic and laboratory values differed in younger versus older patients with heart failure. Older patients with heart failure who were discharged to a skilled nursing facility had lower readmission rates. The effect of partner and disposition status may suggest a proxy for social support. Strategies to provide social support during discharge planning may have an effect on hospital readmission. Future studies that investigate the relationship between social support and hospital readmission may provide more insight into the protective effect of partnered status and disposition to a skilled nursing facility.

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