

DETERMINANTS OF POOR QUALITY OF LIFE AND HIGH HEALTH CARE RESOURCE CONSUMPTION IN HEART FAILURE PATIENTS IN PORTUGAL: AN ANALYSIS OF THE PRIME STUDY

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BACKGROUND/OBJECTIVES

- The objective of this study was to evaluate determinants of poor quality of life (QoL) and high health care resource consumption in heart failure patients in Portugal.

METHODS

- The PRiMe (sacubitril/valsartan PRescription Monitoring study) is a cross-sectional, multicenter and drug utilization study in Portuguese community pharmacies using primary and secondary data collection.
- All community pharmacies associated with the Portuguese National Association of Pharmacies (~2,500; ~85% of the total universe of pharmacies in Portugal) were invited to participate.
- Adult patients (≥18 years) or caregivers with a prescription of sacubitril/valsartan, from June 2018 to July 2019, in community pharmacies were invited to participate.
- Data was collected through a structured two-part questionnaire applied directly to patients/caregivers in which the first part was administered with support from the pharmacist, and the second part contained patient reported outcomes (PROs) answered only by the patients.
- Logistic regressions were conducted to assess variables associated with poor QoL (defined as EQ-5D-3L index score <0.6, which is the mean utility score for the elderly Portuguese population) and high health care resources consumption (defined as at least one emergency room [ER] visit or hospitalization due to a cardiovascular event in the 12 months before recruitment).
- Both models included relevant sociodemographic and clinical variables.
- Results are reported as multivariate odds ratio (OR) and Wald's 95% CI.
- This study was approved by the competent Ethics Committee and is compliant with the General Data Protection Regulation.

RESULTS

- A total of 423 pharmacies participated in the study and 150 recruited at least one patient (22.81%).
- National representativeness was ensured (p=0.702 for the urban/suburban/rural setting distribution of participating pharmacies versus the universe of community pharmacies in Portugal).
- Of the 285 patients recruited, 65.6% were male and their median age was 72.0 years (IQR, 63.0-80.0).
- These patients had a mean EQ-5D-3L index score of 0.63 and 50.2% had at least one ER visit or hospitalization in the 12 months before recruitment.
- Analysis of poor QoL suggests that (Table 1):
 - Being a woman was associated with approximately three times higher chance of poor QoL (OR=3.4, 95% CI: 1.4-8.3).
 - Patients with homecare support (OR=8.8, 95% CI:1.5-53.2), patients with BMI>30 kg/m² (OR=4.9, 95% CI:1.7-14.6) and with sleep disorders (OR=3.1, 95% CI:1.5-6.6) were more likely to report poor QoL.
 - The odds of a poor QoL rises in poorer functional status (i.e. higher SA-NYHA class): SA-NYHA class II, OR=5.2 (95% CI: 1.2-22.3); SA-NYHA class III, OR=10.6 (95% CI: 2.3-49.7); SA-NYHA class IV, OR=19.1 (95% CI:3.8-96.5), versus class I.
- The model for health care resources consumption indicates (Table 2):
 - Having diabetes (OR=1.9, 95% CI: 1.1-3.5) and sleep disorders (OR=2.0, 95% CI: 1.1-3.6) were associated with high health care resources consumption.

RESULTS (cont.)

Table 1. Factors potentially associated with poor QoL (probability modeled EQ-5D-3L index score <0.6)

Variable	Multivariate OR (95% CI)	
Gender	Male	Reference
	Female	3.4 (1.4-8.3)
Age Group	<65	Reference
	65-74	1.3 (0.5-3.2)
	≥75	2.64 (0.98-7.1)
Living alone	No	Reference
	Yes	0.5 (0.2-1.7)
Homecare	No	Reference
	Yes	8.8 (1.5-53.2)
BMI (kg/m ²)	Normal (BMI ≤25)	Reference
	Pre-obesity (BMI >25- <30)	1.1 (0.4-2.9)
	Obesity (BMI ≥30)	4.9 (1.7-14.6)
SA-NYHA class ¹	I	Reference
	II	5.2 (1.2-22.3)
	III	10.6 (2.3-49.7)
	IV	19.1 (3.8-96.5)
Sleep disorders	No	Reference
	Yes	3.1 (1.5-6.6)
Sacubitril/valsartan Exposure	First time users	Reference
	Up to 3 months	0.4 (0.2-1.1)
	4 to 6 months	0.4 (0.1-1.3)
	Over 6 months	0.8 (0.3-2.4)

Hosmer and Lemeshow Goodness-of-Fit Test =0.884;

BMI, body mass index; CI, confidence interval; OR, Odds Ratio; SA-NYHA, self-assessed New York Heart Association.

Table 2. Factors potentially associated with high health care resources consumption (probability modeled ER visit or hospitalization in the 12 months before recruitment=Yes)

Variable	Multivariate OR (95% CI)	
SA-NYHA class ¹	I	Reference
	II	1.0 (0.4-2.4)
	III	0.6 (0.2-1.7)
	IV	2.3 (0.9-6.5)
High blood pressure	No	Reference
	Yes	1.6 (0.9-3.0)
Diabetes	No	Reference
	Yes	1.9 (1.1-3.5)
Sleep disorders	No	Reference
	Yes	2.0 (1.1-3.6)

Hosmer and Lemeshow Goodness-of-Fit Test =0.905;

CI, confidence interval; OR, Odds Ratio; SA-NYHA, Self-assessed New York Heart Association.

CONCLUSIONS

- This study suggests that being a woman, obese, having sleep disorders and worse functional status are associated with poor QoL. Patients having homecare support are believed to have lower health status, therefore, a lower QoL was observed in these patients.
- Likewise, having diabetes and sleep disorders seems to be associated with higher health care resources consumption in this HF population.

REFERENCES

- Holland R et al. 2010, Patients' Self-Assessed Functional Status in Heart Failure by New York Heart Association Class: A Prognostic Predictor of Hospitalizations, Quality of Life and Death. J. Card. Fail.;16, 150-156