

Predictive factors for health-related quality of life in congestive heart failure: systematic review

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Background Improved treatment of congestive heart failure (CHF) has resulted in a decrease in mortality and hospitalisations in patients with CHF. However, no cure is available making better management of CHF of paramount importance. Therefore, the H2020 HeartMan project was developed to provide accurate advice on disease management adapted to individual patient through the use of a Decision Support System (DSS), telemonitoring and a mobile application.

Purpose The aim of this study was to identify key predictors of HRQoL in patients with CHF, focussing on modifiable parameters. This information will enable the DSS, which is the core of the HeartMan project, to provide evidence-based advice that may improve the patient's outcome.

Methods MEDLINE, Web of Science and Embase were searched for the following combination of terms: heart failure, quality of life, health perception and functional status between the period of 2000 and February 2016. Systematic literature screening was done by two independent reviewers considering citations on stable ambulatory CHF patients and reporting on predictors of HRQoL.

Results Fifty-four studies out of 7355 citations were included for further data extraction and quality appraisal. Sixteen distinct categories clustering different types of variables were found, with demographic characteristics, mental health, functional status, comorbidities and physical capacity as the most important categories. Within the abovementioned categories, age, depression, New York Heart Association (NYHA) class, gender, comorbidities and social support were the most frequently cited decisive variables explaining the variance of HRQoL.

Conclusion Through a systematic literature search, a list of modifiable parameters for HRQoL among CHF patients was composed and will be used in the design of the DSS for the HeartMan project. A wide variance in predictors for HRQoL has been described in literature with demographic but also mental health characteristics being the most important categories. The underlying relation between these distinct categories should be further explored and taken into account in the development of the system.

The HeartMan project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 689660. Project partners are Jožef Stefan Institute, Sapienza University, Ghent University, National Research Council, ATOS Spain SA, SenLab, KU Leuven, MEGA Electronics Ltd and European Heart Network.

