Supportive care reinforces telemonitoring in heart failure patients: pilot results of the "SupportHeart"

M. Kyriakou[1], K. Philippou[1], A. Samara[1], N. Vouri[1], A. Malaktou[1], V. Barberis[2], N. Middleton[1], E. Lambrinou[1]

[1]Cyprus University of Technology, Limassol, Cyprus; [2]Vassilis Barberis Cardiology Practice, Nicosia, Cyprus

Funding Acknowledgement: Type of funding sources: None.

Introduction: Disease management programs for HF are characterized by heterogeneity and different levels of complexity, thus the results regarding of their effectiveness are controversial. The trajectory of HF makes supportive care (SC) mandatory. The main feature of this framework is continuing communication addressing patient's support needs.

Aim: To evaluate the effectiveness of an individualized SC management program.

Study design: This was a pilot study of a randomized control trial (RCT) [control group (CG) and intervention group (IG)], the "SupportHeart" to assess a SC management program for HF patients. Patients allocated in the IG received written material for HF self-management and the first brief educational session was conducted by a nurse in the bedside.

The intervention was consisted by monthly meetings including educational sessions about the HF syndrome, pharmacological and non- pharmacological treatment, self-management and physical activity (PA). The evaluation of the intervention included health-related quality of life (HR-QoL), self-care management, adherence to PA, anxiety and depression and perceived support. Furthermore, acute events (readmissions and deaths) were measured. Monthly phone calls were also contacted by the research team and patients could call them whenever they needed to. Statistical comparisons were performed and Kaplan Meir curves and the log-rank test (LRT) were utilised to explore the time until the first acute event.

Results: Thirty-five patients with HF participated in the study and the intervention lasted for six months (mth). A better HR-QoL was found for both groups in the sixth mth period with a difference in the social dimension of the HR-QoL favoring the IG. IG: baseline = 4.8 (4.9)/1st mth = 3.3 (3.5)/6th mth=2.8 (3.1), CG: baseline = 2.3 (1,1)/1st mth = 3.4 (2,7)/6th mth = 2.7 (2.8)]. Also, a difference in the sub-scale of family/significant others was indicated where the IG followed an increased trend [IG baseline = 50.9 (5.4)/6th mth = 52.7 (3.4)] [CG baseline = 50.3 (8.9)/6th mth = 49.9 (4.2)]. No difference was found for self-care management, except of the sub-dimension of PA and recognition of deteriorating symptoms favoring IG. IG: baseline = 11.7 (3.4)/1st mth = 13.1 (2.0)/6th mth = 13.6 (1.7). The survival of the CG was lower than that of the IG in 30 days: (LRT, $\chi^2(1)=5.7$, $p=0.02$), 90 days: (LRT, $\chi^2(1)=12.3$, $p<0.001$) and 180 days: (LRT, $\chi^2(1)=6.8$, $p=0.009$).

Conclusion: This is the first RCT assessing the effectiveness of SC in HF and it seems to be a promising concept for HF management programs. There was a great effect in acute events as it was found a reduced risk by 87% for a patient receiving SC. Continuing communication which seems to be achievable through telehealth and phone follow-up incorporating patients' preferences, values, beliefs, illness understanding and information needs into the decision-making process and is shown to be a promising approach in the care of patients with HF.