GW23-e1617 | **DAILY-BASED SELF-MANAGEMENT FOR NON-HOSPITALISED HEART FAILURE PATIENTS IMPROVE PROGNOSIS**

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Objectives Our study focused on the method of monitoring, and integrated a variety methods of follow-up. We expected to establish a new management model which relies on patients themselves,

that is 'self-management'. In present study we will evaluate the effectiveness of this model for HF patients in comparison to usual care. And more importantly, we expected to explore the daily indicators related to heart failure prognosis.

Methods The study is designed as a two-group randomised controlled trial in which patients are assigned randomly to receive daily-based self-management (intervention group) or to receive usual care (control group). For intervention group patients, they will get self-management training and monitoring, including measure heart rate, blood pressure, weight, judge degree of oedema and dysponea, and complete 6-min walk test at home. All of these data will be recorded and become an important basis for determining the patient's treatment. Patients from the control group receive usual care. All patients will be followed –up for 1 year. Left ventricular ejection fraction and BNP at 3rd, 6th and 9th month after enrolled were examined. The main outcome variables are hospital readmissions for heart failure. The secondary outcome variables are cardiac function, quality of life, all-cause hospitalisations, adverse events and days of hospitalisation.

Results Finally, 171 patients with heart failure have finished the follow-up, including 84 intervention group patients (Age 66.8 ±11.3 years) and 87 control group patients (Age69.9±9.6 years). The baseline characteristics of two groups showed no significant difference ($p>0.05$). (1) The daily-based self-management significantly reduced the heart failure hospitalisation rate (RR=0.41, 95% CI 0.21 to 0.79). Furthermore, in the intervention group patients, all-cause hospitalisation rate, time of hospital stay for heart failure were significantly lower than control patients (36.90% vs 81.71%, 16.72 days vs 24.19 days, all $p<0.05$). (2) Considering the cardiac function, LVEF showed an improved trend over time, while the LVEF of conventional group patients showed no significant change. At all time points, BNP levels of intervention group were significantly lower than the control group ($p<0.05$). (3) We use Minnesota Living with Heart Failure Questionnaire (LiHFe) to evaluate the quality of life in patients. The results showed that the average score of the intervention group patients was significantly lower than the conventional group patients (21.11±18.03 vs 34.53 ±14.85, $p<0.05$). That means the quality of life in intervention group had been improved. (4) We analysed the daily-data which were monitored by patients through Logisitic multiple analysis. Finally, the indicators we filtered out as independent risk factors for heart failure hospitalisation were weight change and shortness of breath ($p<0.05$).

Conclusions The daily-based self-management model can reduce hospitalisation rates of patients with heart failure, improve their quality of life, save medical expenses. More importantly, through the accumulation and analysis of routine data, we found the independent risk factor for failure hospitalisation, such as body weight and shortness of breath.