

## **Abstract**

### **Background**

To evaluate heart failure (HF) patients after using a tablet computer (OPTILOGG®), aiming at improvement of self-care behaviour, generic and disease specific quality of life (QoL and HRQoL), knowledge about HF and to reduce hospital days due to HF.

### **Methods and results**

HF patients (n=82) were randomized to an intervention group (IG) equipped with a tablet computer, or a control group (CG), subject to standard care. The tablet computer gave information and life style advice. Study was completed by 72 patients, mean age 75±8 years, 68% male, 74% NYHA class III, 26% NYHA class II. Self-care behaviour measured with European Heart Failure Self-Care Behaviour Scale (EHFScB), HRQoL measured by Kansas City Cardiomyopathy Questionnaire (KCCQ), QoL measured by Swedish version of the Health Survey (SF-36), knowledge of HF measured by Dutch Heart Failure Knowledge Scale, days in hospital and adherence were analyzed after 6 months. The IG displayed better self-care behaviour, EHFScB-9 score (median IG: 16.5 [IQR: 12, 22] vs. median CG: 23.5 [IQR 18.8, 30.0],  $p<0.05$ ) and improved HRQoL (median IG: 72.7 [IQR: 50.8, 87.9] vs. median CG: 51.8 [IQR 40.9, 62.8],  $p<0.05$ ). A significant difference in knowledge was detected, 11% increase in IG and 1% decrease in CG ( $p<0.05$ ). There was a reduction in hospital days in IG by 2.7 days per patient (RR: 0.72, 95% CI: 0.61-0.84,  $p<0.05$ ). Adherence was high, median 85% [IQR: 71%, 93%].

### **Conclusion**

The tablet computer significantly improved self-care behavior, HRQoL, increased knowledge about HF and reduced hospital days.