Early follow up visit by a heart failure team after acute heart failure hospitalization and impact in outcomes

S.F.C. Maltes, A.S.R.P. Furtado, R.F. Homem, R.M. Santos, J. Mauricio, C.A.P.F. Rodrigues, I. Araujo, M.C. Fonseca

Hospital de Sao Francisco Xavier, Lisbon, Portugal

Funding Acknowledgement: Type of funding source: None

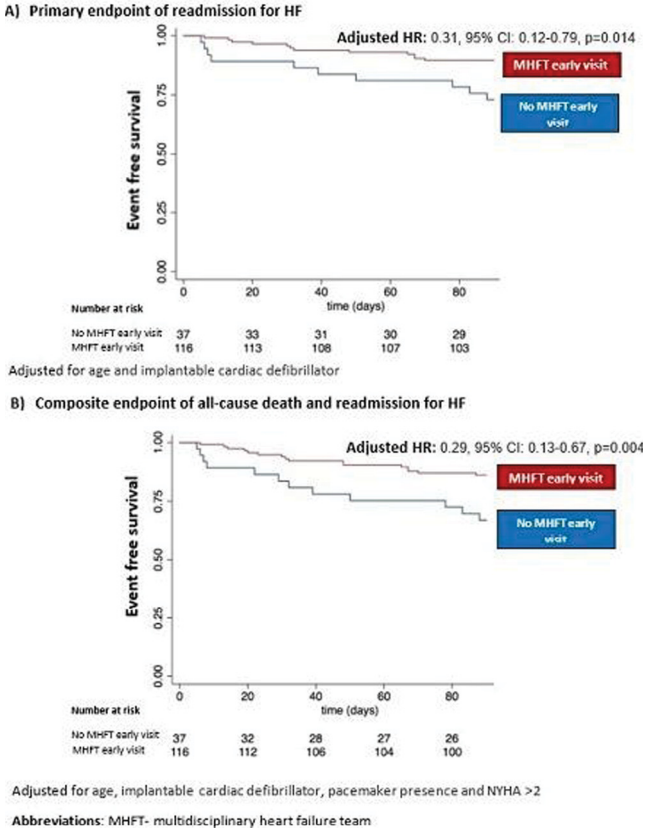
Background: Hospitalization for Acute Heart Failure (AHF) remains an important turning point for patients and families, presenting itself as an index event after which the rate of readmission and mortality are particularly high. Hospitalization for Heart Failure (HF) also has a considerable cost impact on healthcare systems. Strategies that reduce the risk of readmission for HF are, therefore, crucial for patients and healthcare systems. A possible strategy to reduce HF readmissions currently recomended by the European Society of Cardiology is guaranteeing an outpatient follow-up visit carried out by a multidisciplinary HF team (combining specialized medical and nurse care) shortly after discharge. Our goal was to describe and demonstrate the feasibility of an early follow-up visit carried out by a multidisciplinary HF team in the transition care of HF patients, after hospital discharge, and to evaluate its association with early HF readmission and all-cause mortality.

Methods: This was a retrospective cohort study of acute heart failure (AHF) patients consecutively admitted to an AHF Unit during one year. Exclusion criteria were in-hospital death and transfer to another hospital. We compared patients who were evaluated in a follow-up visit carried out 7 to 14 days after hospital discharge where treatment adjustments could be made, with those who were not. Primary outcomes: AHF readmissions and all-cause mortality at 3 months after discharge were analysed. Cox proportional hazards regression was used.

Results: Of 181 admissions for AHF, 153 were analysed. Patients were 77±11 years-old; 54% were male and 46% had reduced left ventricular ejection fraction. At hospital discharge median NT-proBNP was 3258 (1429–5995) pg/mL. One-hundred and forty-four (94%) patients were referred to a follow-up visit by the same multidisciplinary HF team with a compliance rate of 81% (n=116). The mortality rate after 3 months was 6.5% (n=10) and the AHF readmission rate was 14.3% (n=22). An early follow-up visit was independently associated with a lower risk of AHF readmission at 3 months after discharge (crude HR 0.35, 95% Confidence Interval (CI): 0.15–0.82, p=0.015; adjusted HR for age and implantable cardiac defibrillator: 0.31, 95% CI: 0.12–0.79, p=0.014) (Figure 1A). and a lower combined risk of all-cause mortality or AHF readmission at 3 months (crude HR 0.37, 95% CI: 0.18–0.78, p=0.009; adjusted HR for age, implantable cardiac defibrillator, pacemaker presence and NYHA >2: 0.29, 95% CI: 0.13–0.67, p=0.004) (Figure 1B).

Conclusion: Conducting an early specialized follow-up visit after AHF hospitalization is highly feasible and associated with an excelent patient compliance. A multidisciplinary HF team visit in the vulnerable phase after AHF hospitalization was associated with a significantly lower risk of HF readmission and all-cause death at 3 months, mostly due to preventable readmissions.

Figure 1. Survival Kaplan-Meier curves at 3 months



Abbreviations: MHFT- multidisciplinary heart failure team