Appendix C.

Description of imputation approach in accordance with the methods described by Faria et al. [20].

At baseline, there were 2.92% missing values in the EQ-5D summary score (seven patients in the intervention group and one in the control group). Twenty-three (8.39%) participants died during the trial (ten in the intervention group and 13 in the control group) and were assigned an EQ-5D summary score of zero at the date of their death, which was used for interpolation in the estimation of the QALY gain. Furthermore, 90 participants had missing data in the follow-up EQ-5D summary score, either due to non-response or because of missingness in single components of the EQ-5D-5L questionnaire (43 patients in the intervention group and 47 in the control group). 50% had missing values in municipality costs (66 patients in the intervention group and 71 in the control group), whereas complete information existed on all other cost parameters for all patients (see Table 2). For patients who withdrew their consent during the trial, data collected up to the withdrawal date were included for analysis, and data that were to be collected after the withdrawal date was included as missing.

Complete data for both total costs and EQ-5D summary scores at baseline and follow-up were available for 89 patients. A sensitivity analysis was performed on complete cases only.

Based on a visual inspection of the pattern of missingness and regression analysis to evaluate the correlation between missingness and baseline variables, missing data at follow-up were assumed to be missing at random (MAR)[20]. Multiple imputations were used to account for missing values at both baseline and follow-up. It was assumed that the multiple imputations of baseline variables would not augment covariate imbalance substantially due to low missingness in most of the variables (see Table 2)[20].

Missingness in the baseline EQ-5D-5L summary score was mainly caused by missingness in the individual components of the EQ-5D questionnaire. For this reason, the imputation was performed on the level of the individual components at baseline. At follow-up, missingness of the EQ-5D-5L summary score was mainly caused by missingness of the entire follow-up questionnaire, so the imputation was performed for the summary score.

A combined imputation model using chained equations was generated for both costs and outcomes and was performed using the *mi impute chained (pmm,knn(5))* command in STATA15.1[43,44]. Continuous variables such as municipality cost and multinomial variables such as the individual components of the EQ-5D questionnaire at baseline were imputed using predictive mean matching with the k=5 nearest neighbors. Sixty complete datasets were generated. The imputation model included the outcome variables

themselves, predictors for the outcome variables, and predictors for missingness in the outcome variables. The imputation models were estimated separately for the intervention group and control group and included patients' sociodemographic characteristics (age, gender, relationship status, and level of education), the individual components of the EQ-5D questionnaire at baseline, the summary score of the EQ-5D-3L questionnaire at follow-up, patients' self-reported length of HF diagnosis, NYHA classification at baseline, presence of self-reported comorbidity (diabetes mellitus, COPD, psychological disorder, musculoskeletal disorder, cancer, or 'other'), self-reported smoking status (yes/no), total costs excluding municipality costs in the year preceding the study start date, municipality costs in the year preceding the study start date, total costs excluding municipality costs at follow-up, and municipality costs at follow-up (see Table 1).