**Supplementary material**

**Supplementary Figure S1.**  A subgroup analysis in patients without tachyarrhythmia as a cause of heart failure (n=82). Changes in heart rate over time through the follow-up period in patients with persistent heart failure with reduced ejection fraction (HFrEF, n=42) and heart failure with recovered ejection fraction (HFrecEF, n=40). Represented heart rates are at the time of admission of the index hospitalization (on admission), at the time of discharge (at discharge), at the first outpatient visit after discharge (after discharge), at the outpatient visit just before the last ultrasound echocardiography (UCG) examination (before last UCG), and at the end of follow-up, i.e., at the last UCG examination (at last UCG). Values are given as mean ± SD. \**p*<0.05, \*\**p*<0.01 vs. persistent HFrEF.

****