Impact of adherence to GDMT on clinical outcomes in older patients with HFrEF

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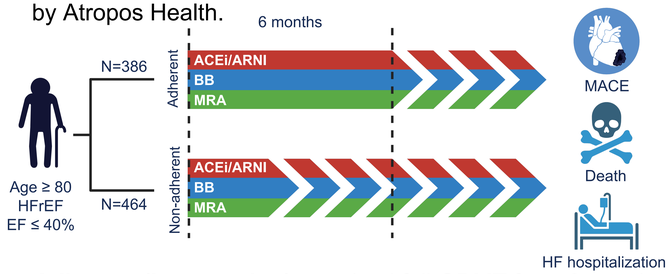
BACKGROUND

- Guideline-directed medical therapy (GDMT) is the cornerstone of pharmacotherapy for patients with heart failure with reduced ejection fraction (HFrEF).
- The benefits of GDMT in older patients with HFrEF is unclear.
- In this study, we investigate the clinical outcomes in older patients (age ≥80) with HFrEF stratified by adherence to GDMT.

METHODS

- Retrospective cohort analysis, data from electronic health records at Stanford Health Care from 2011 to 2020. Analysis by Atropos Health.



- **Adherent (intervention):** received full GDMT for > 6 months according to prescription and pharmacy dispensing reports.
- **Non-adherent (control):** started on full GDMT, but one or more of the agents were discontinued within 6 months.
- **Outcomes:** major adverse cardiac events (MACE), deaths, and HF hospitalizations at 1 year.

RESULTS

- Adherent (intervention) group had a lower Charlson Comorbidity Score (7.1 *v.* 8.6; **Table 1**)
- Propensity-match outcomes at 1 year were similar (**Fig. 1**):
  - **MACE:** no difference (OR 1.25, 95% CI=0.91-1.72, *P* = 0.17).
  - **Death:** no difference (OR 2.0, 95% CI=0.10-119, *P* = 1).
  - **HF admission:** no difference (OR 1.25, 95% CI 0.91-1.71, *P* = 0.17).
- Long-term survival was not different (HR 1.03, 95% CI 0.66-1.61; *P* = 0.90; **Fig. 2**)

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Older adults age ≥ 80 with HFrEF have **similar outcomes** regardless of their **adherence to full GDMTs** for > 6 months

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TABLE 1: Baseline characteristics

Characteristic	Adherent (N=386)	Non-adherent (N=464)
Female (%)	162 (42%)	195 (42%)
Mean age (S.D.)	82.9 (2.8)	83.9 (3)
80-89 yr	386 (100%)	464 (100%)
Race (%)		
White	263 (68.1%)	314 (67.7%)
Other	51 (13.2%)	65 (14%)
Asian	43 (11.1%)	62 (13.4%)
Black	29 (7.5%)	23 (5%)
Hispanic (%)	36 (9.3%)	32 (6.9%)
Comorbidity score (S.D.)	7.1 (3.4)	8.6 (3.5)
Malignancy	85 (22.02%)	113 (24.35%)
Diabetes	122 (31.61%)	155 (33.41%)
Myocardial Infarction	106 (27.46%)	164 (35.34%)
Chronic Pulmonary Disease	127 (32.9%)	177 (38.15%)
Cerebrovascular Disease	98 (25.39%)	153 (32.97%)
Dementia	17 (4.4%)	29 (6.25%)
Renal Disease	135 (34.97%)	215 (46.34%)

FIGURE 1: Odds ratios after propensity score-matching

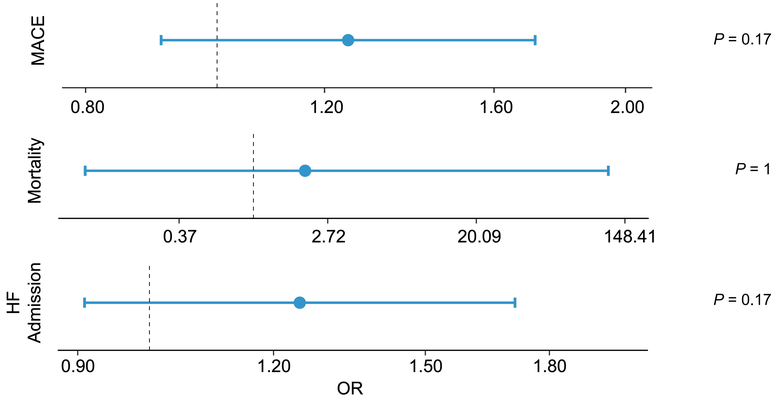
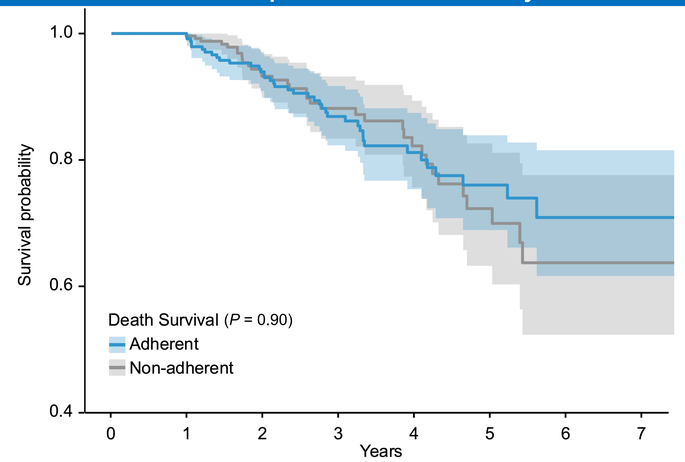


FIGURE 2: Kaplan Meier survival analysis



CONCLUSION

- In this single center study, older adults with HFrEF have similar outcomes regardless of their adherence to full GDMTs for >6 months.
- Our study highlights the need for dedicated RCTs in older patients with HFrEF since findings from existing studies may not extend to this unique population.

DISCLOSURE INFORMATION

The authors report no disclosures