Influence of background medical therapy on efficacy and safety of dapagliflozin in patients with heart failure with improved ejection fraction in the DELIVER trial

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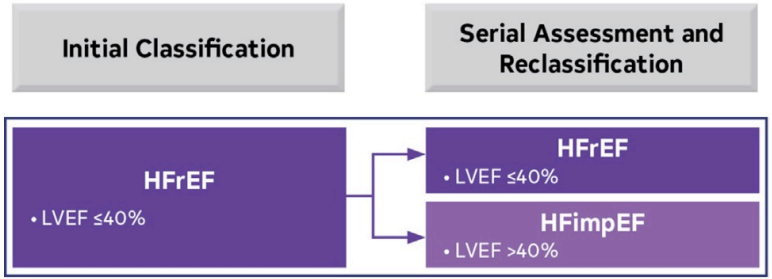
August 26th, 2023

DELIVER

Background

Current HF guidelines



Recognizing LVEF is dynamic, the AHA/ACC/HFSA 2022 Guidelines define HFimpEF as:

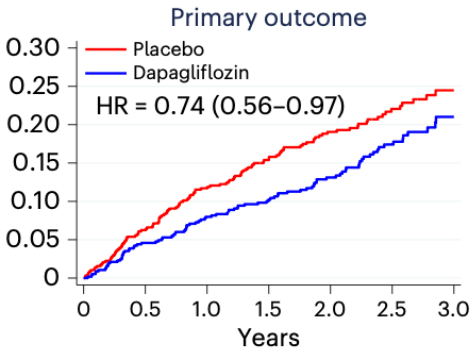
"Previous LVEF ≤40% and a follow-up measurement of LVEF >40%"

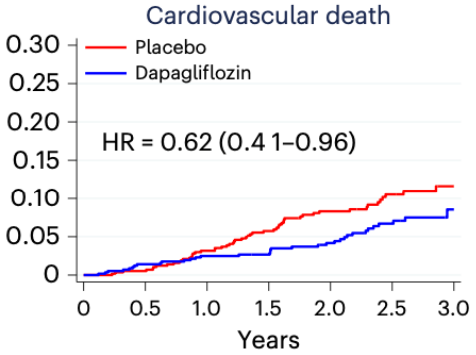
(as defined in the DELIVER trial)

COR	LOE	RECOMMENDATION
1	B-R	1. In patients with HFimpEF after treatment, GDMT should be continued to prevent relapse of HF and LV dysfunction, even in patients who may become asymptomatic (1).

- **Whether there is benefit of further optimization with additional therapies after improvement in LVEF is uncertain**
- **The HFimpEF has largely been excluded from pivotal trials supporting current GDMT recommendations**

DELIVER





Heidenreich P et al. JACC 2022

Vardeny et.al, Nature Medicine 2022

Methods

- **Aim:** *To investigate the efficacy and safety of dapagliflozin in patients with HFimpEF by the number of HF medical therapies at baseline.*

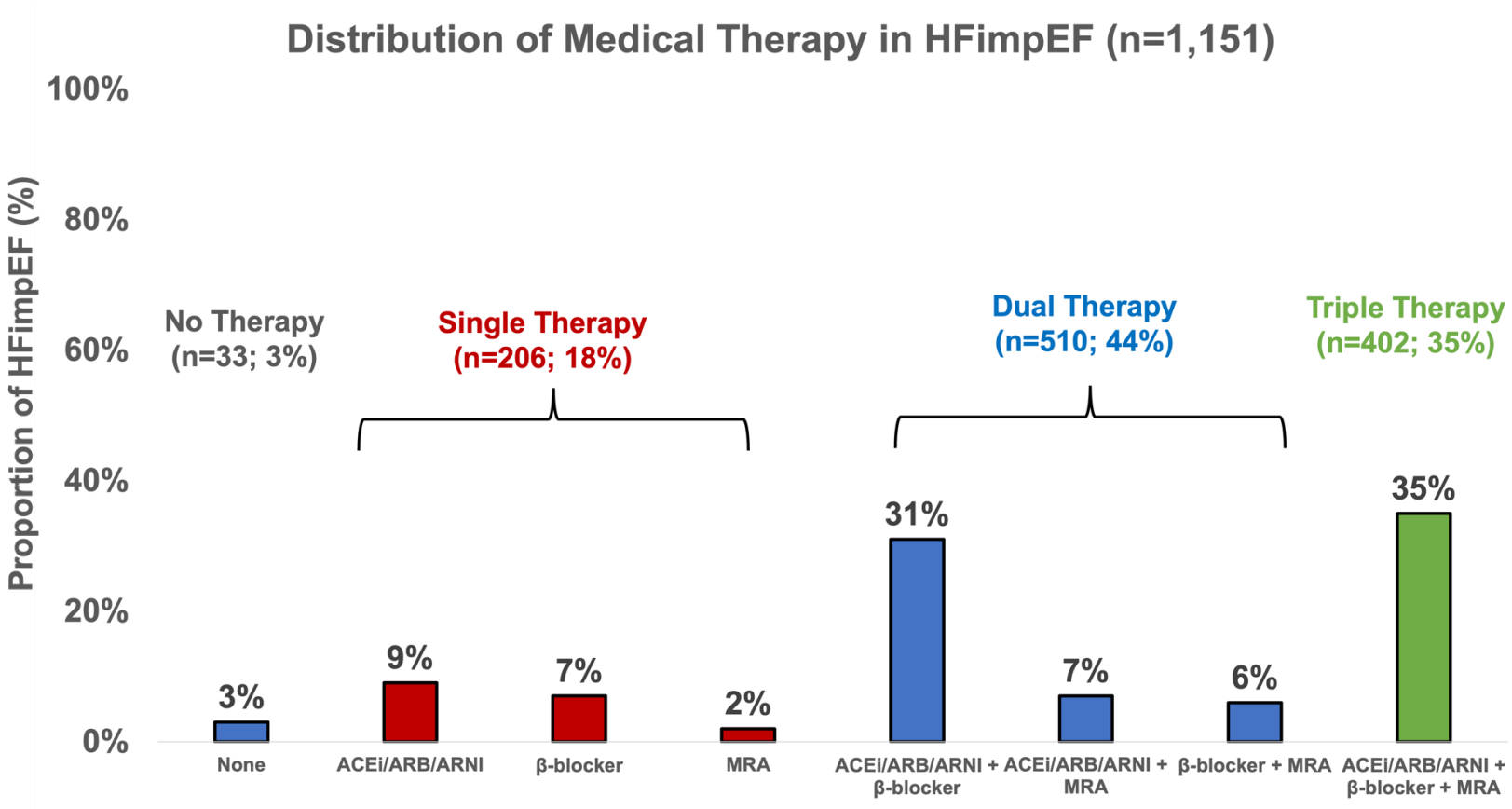
HFimpEF
1151 Pts

DELIVER
6263

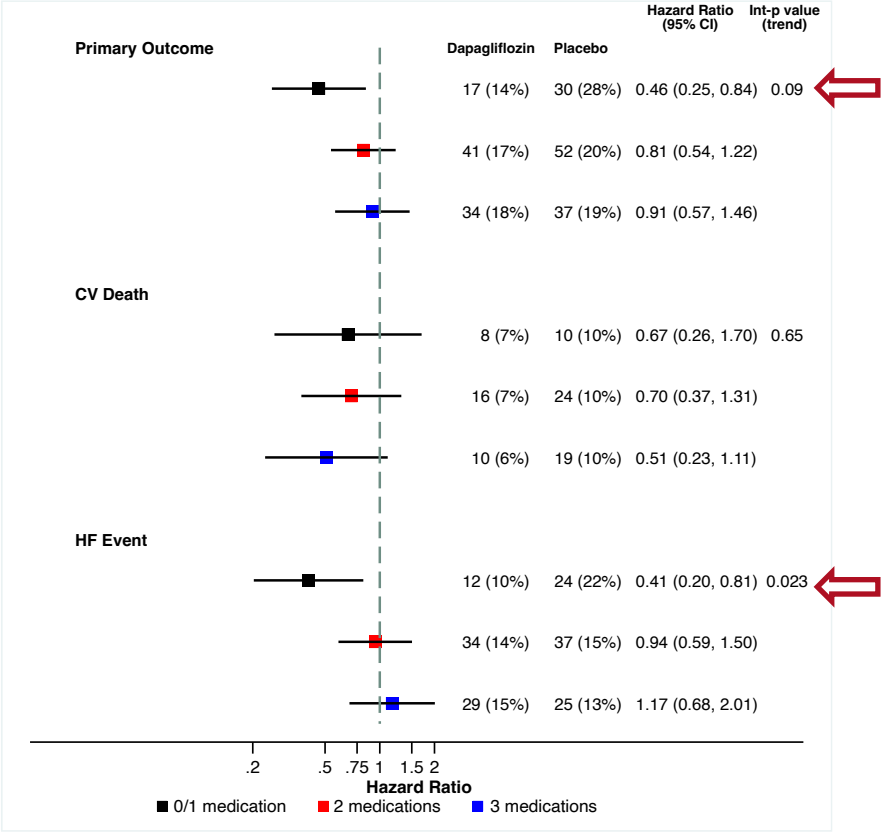
# of HF background medical therapies
Beta blocker
ACEi/ARB/ARNI
MRA
Range 0-3

Primary outcome: composite CV death or worsening HF (unplanned hospitalization or urgent visit requiring IV HF therapies).

Baseline characteristics



Event rates and treatment effect of dapagliflozin by background medications



Adverse effects (AE) by background HF medications

Variable	0-2 HF Medical Therapies			3 HF Medical Therapies		
Safety outcomes – no. (%)	**Dapa N=346**	**Placebo N=342**	**p**	**Dapa N= 226**	**Placebo N= 235**	**p**
Any serious AE	43%	49%	0.11	43%	45%	0.77
Discontinuation due to AE	7%	6%	0.68	5%	7%	0.37
Any AE leading to interruption of IP	13%	17%	0.18	15%	15%	0.96
Any renal serious AE	2%	3%	0.79	3%	3%	0.83

Conclusion

- The addition of dapagliflozin was safe and did not lead to a higher risk of adverse events among those with HFimpEF, including those treated with a BB, MRA and ACEi/ARB/ARNI at baseline.

- Patients on 0-1 HF medications at baseline may derive greater benefit of dapagliflozin in reducing the risk of worsening HF event, but the effects of dapagliflozin on other outcomes, such as CV death were consistent irrespective of background HF therapies.

Simultaneously Published in the *European Journal of Heart Failure*

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