Medical Therapy During Hospitalization for Heart Failure with Reduced Ejection Fraction: The VICTORIA Registry

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Background

- For patients hospitalized with heart failure (HF), the hospitalization period represents a key opportunity for initiation and titration of guideline-directed medical therapy (GDMT).
- The extent to which medication initiation, discontinuation, and dosing changes occur during HF hospitalizations in contemporary North American practice is unknown.

Methods

- The VICTORIA Registry enrolled patients hospitalized for HF with reduced ejection fraction (HFrEF) at 51 sites across the United States and Canada between February 2018 and January 2019.
- Of 2,056 total registry patients, 34 (1.7%) were enrolled in the VICTORIA Clinical Trial.
- The current analysis included patients meeting the following criteria: ejection fraction ≤40%, complete medication data at admission and discharge, not receiving dialysis/end-stage renal disease, not transferred to another hospital or discharged to hospice.
- Use and dose of ACEI/ARB, ARNI, evidence-based beta-blocker, and MRA therapy at hospital admission and discharge were examined.
- For analyses of in-hospital medication changes, patients with absolute contraindications to GDMT were excluded.

Results

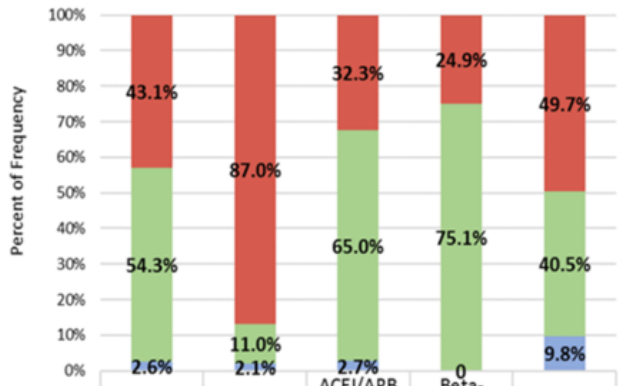
Characteristic	(N=1695)
Age (years)	69 (59-79)
Women, n (%)	561 (33.1)
White Race, n (%)	1055 (62.2)
Systolic BP (mmHg)	125 (110-144)
eGFR (ml/min/1.73 m^2)	54 (39-61)
Ejection fraction (%)	25 (20-33)
Hospital length of stay (days)	6 (3-10)

Data represent median (interquartile range [IQR]) or n (%)

Figure 1. Prescription of Medical Therapy at Hospital Discharge

28% of eligible patients discharged on "triple therapy" (ACEI/ARB/ARNI, beta-blocker, and MRA)

1% discharged on target doses of "triple therapy"



	ACEI/ARB	ARNI	ACEI/ARB /ARNI	Beta-Blocker	MRA
Without Contraindication and Not Treated	730	1474	547	422	842
Treated	921	186	1102	1273	687
With Contraindication	44	35	46	0	166

Figure 2. Dose of Medical Therapy at Hospital Discharge

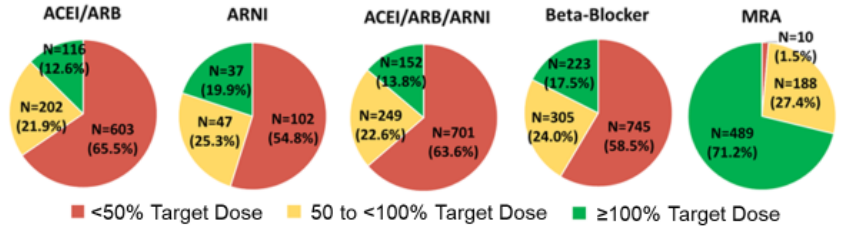
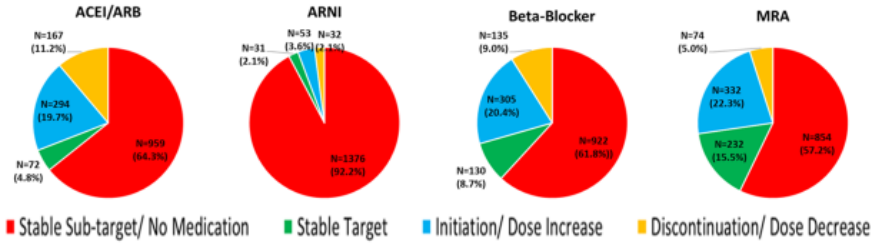


Figure 3. Dose of Medication at Discharge Compared with Admission



Conclusions

- Among patients hospitalized for HFrEF and eligible for therapy, 33%, 25%, and 55% of patients were not prescribed ACEI/ARB/ARNI, beta-blocker, and MRA at discharge, respectively.
- For all medications, most patients received stable sub-target doses or no medication throughout the hospitalization. Relatively few had medications initiated or doses increased.
- Further implementation research is needed to understand the reasons for large gaps in GDMT and improve the use and dosing of GDMT during the HF hospitalization.

DISCLOSURES

RJM: Bayer, Merck; **SJG:** AstraZeneca, Amgen, Bristol-Myers Squibb, Cytokinetics, Merck, Novartis; **JAE:** Bayer, Merck, Servier, Amgen, Cytokinetics, American Regent, Applied Therapeutics, Sanofi; **NKS:** Merck and Myokardia; **ILP:** Merck, Relypsa, AstraZeneca; **CMO:** Bayer, Merck, Bristol-Myers Squibb; **JK:** Merck; **LR:** Bayer; **AFH:** AstraZeneca, Bayer, Merck, Novartis, Verily, Amgen; **PWA:** Bayer, Merck, Sanofi-Aventis, Recherche & Development, Boehringer Ingelheim, CLS Limited, AstraZeneca, Novartis. All other authors report no conflicts.

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