

OBJECTIVES

Hypertrophic cardiomyopathy (HCM) is the most common form of inherited heart disease affecting 1 in 200 to 500 people, causing heart muscle to thicken and affecting the normal heart function.¹⁻² People with HCM are at higher risk for developing atrial fibrillation, heart failure and sudden cardiac arrest.³

Real-world evidence on inequities in the clinical course of HCM among a large cohort of patients from hospital-based facilities across USA is limited. This study was conducted to assess equity in treatments and clinical outcomes in the year after first HCM discharge.

METHODS

Data sources:

- HIPAA compliant, statistically de-identified PINC AI™ Healthcare Database (PHD), a large, all-payer administrative database from a large network of US-based hospitals.
- General Mortality Data Linked to PHD

Patient selection criteria: Adult patients (≥ 18 years) with a discharge diagnosis of HCM during 4/2016-3/2022 with one-year follow-up

Exposure: Social vulnerability index (SVI), assessed at county level, was divided into quintiles, with the fifth quintile representing the highest vulnerability

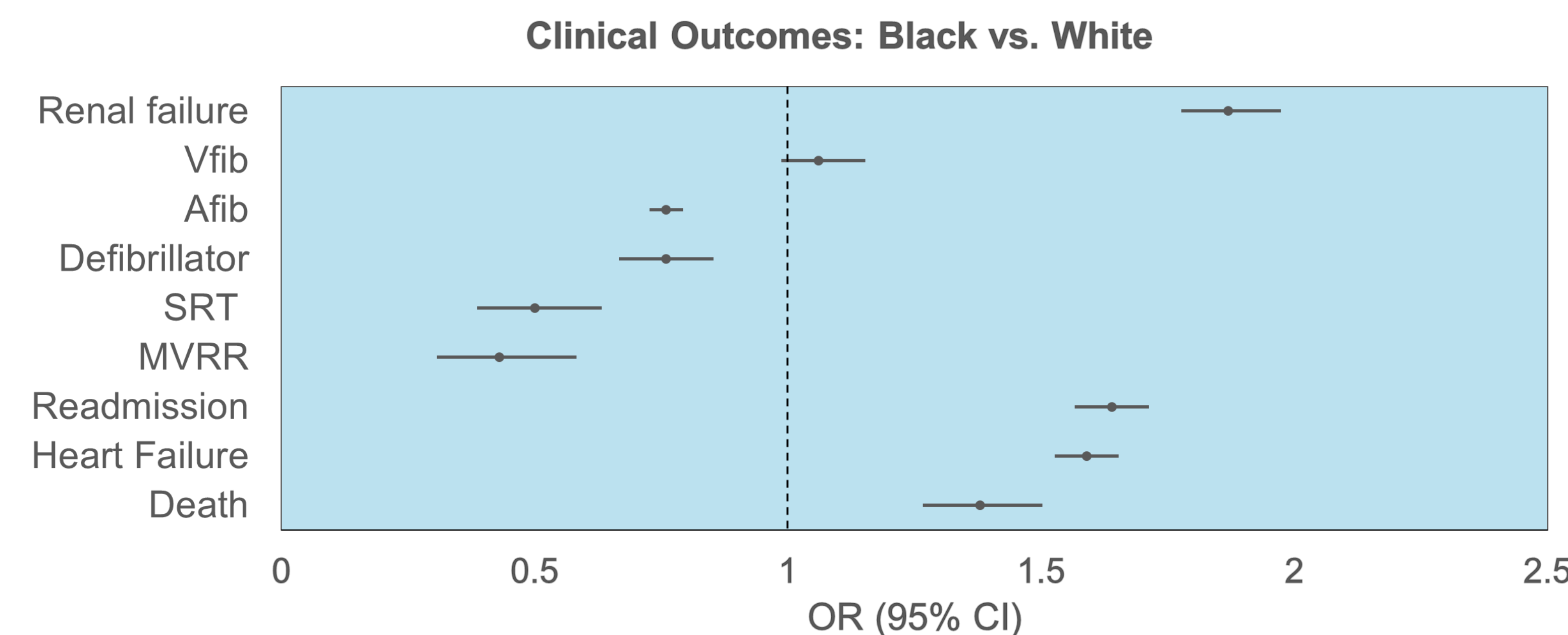
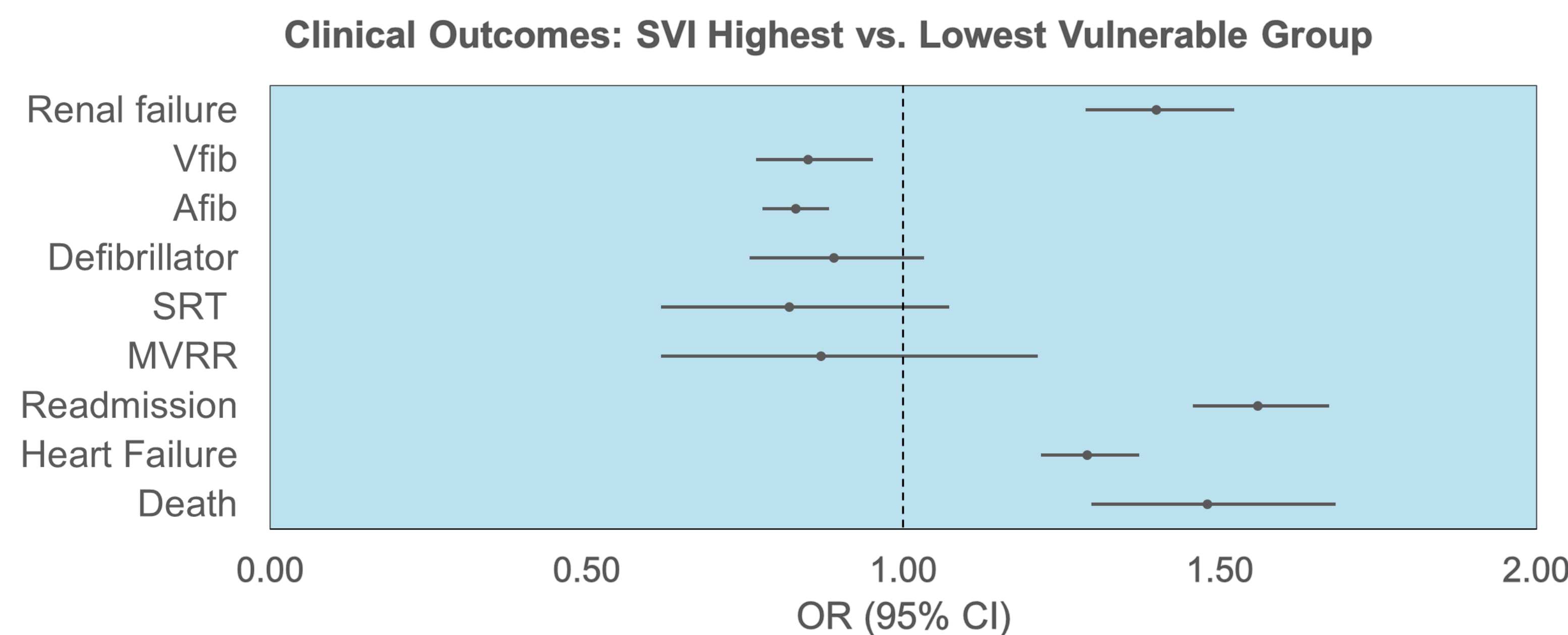
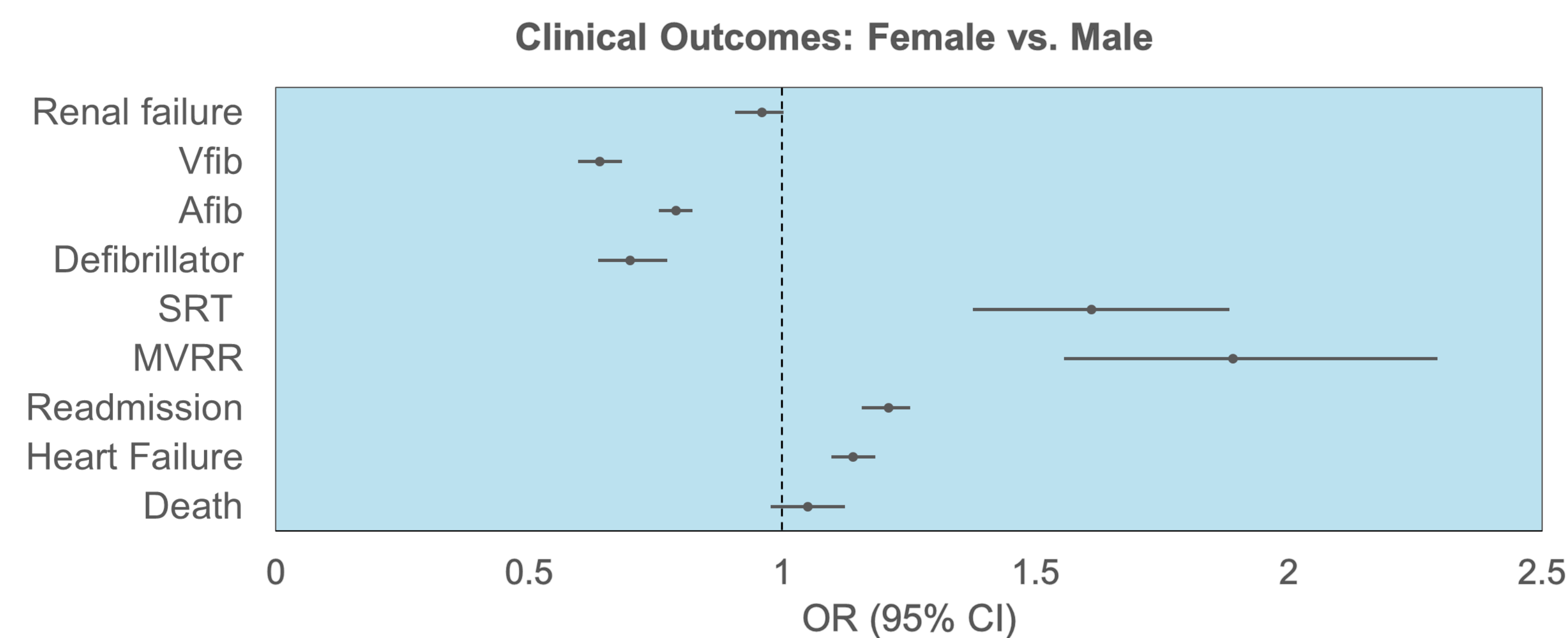
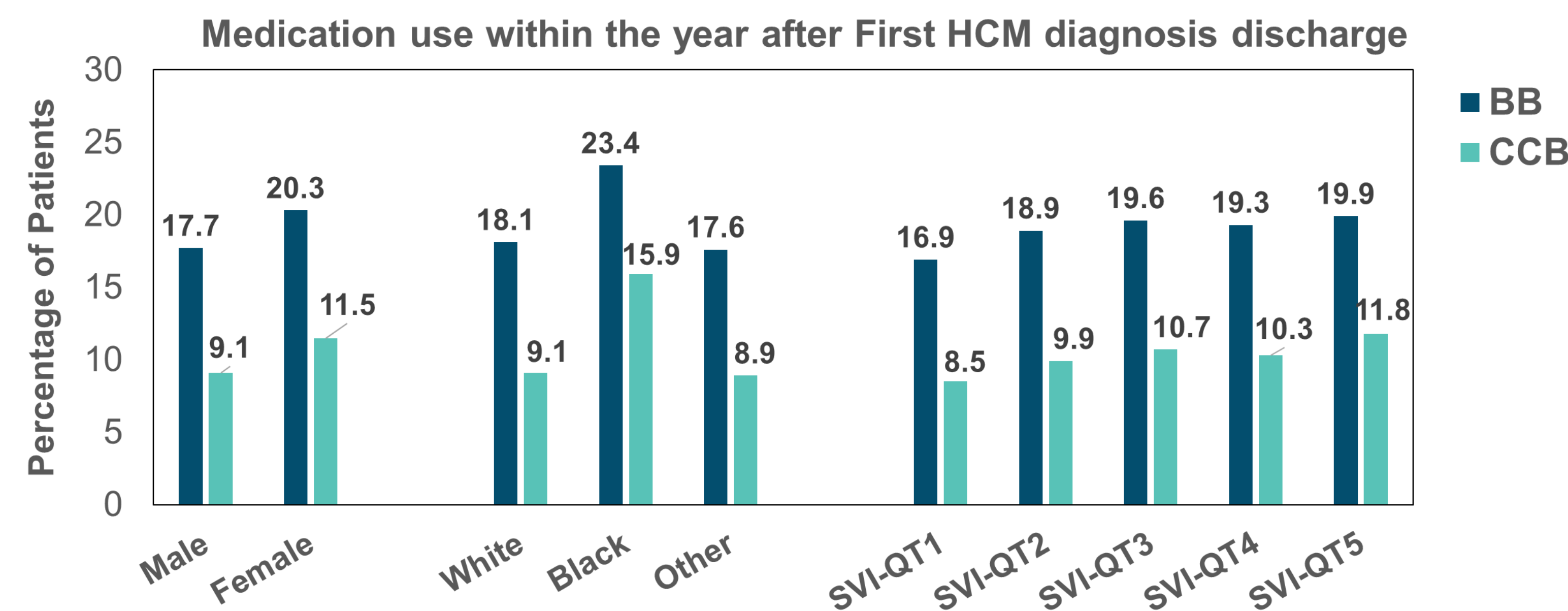
Primary outcome: Readmission in the year after first HCM discharge

Analysis: age-adjusted logistic regression analysis for assessing disparity (sex, race, social vulnerability index) on clinical outcomes and treatments.

Results:

- A total of 109,604 patients with HCM from 1,114 hospitals were analyzed.
- Patients aged 65 years and older accounted for 53% of the total sample.
- Majority were female (52%), 19% were Black, 5.5% were Hispanic, 57% had Medicare as the primary insurance and 17.7% were from patients in the high-vulnerable counties.
- Overall, <1% had any septal reduction procedure, 19% had heart failure, 13% were readmitted and 3.3% died within one year of first HCM discharge.
- The median 1-year hospitalization LOS and total costs were 7 days and \$18,485, respectively.
- Female, Black and the highest SVI group were more frequently prescribed beta blocker and calcium channel blocker

RESULTS



ADJUSTED RESULTS

Disparity Analysis adjusting for age

By sex:

- Female: Significantly higher odds for undergoing an SRT, mitral valve procedures, readmissions, and heart failure (p<0.05).
- Male: Higher odds for arrhythmias (atrial & ventricular fibrillation / tachycardia) and defibrillator use (p<0.05).

By Race:

- Black vs. White: Significantly higher odds for renal failure, readmission, heart failure and death within 1-year of index discharge (p<0.001) and significantly lower odds for atrial fibrillation, SRT, MVRR, defibrillator use.

By SVI:

- Highest vs. lowest vulnerable group: Significantly higher odds for renal failure, readmission, heart failure and death within 1-year of index discharge and lower odds for cardiac arrhythmias (p<0.05).

STRENGTHS & LIMITATIONS

Strengths:

- Ability to provide real-world data on treatment and clinical course disparities in patients with HCM.
- Utilization of large Mortality Database

Limitation:

- Patients cannot be followed across different treatment settings.

CONCLUSIONS

Female, black and highest vulnerable group were significantly associated with higher 1-year readmission. This large study highlights sex, racial and social inequities in the clinical course of HCM. Recognizing the disparities can guide targeted interventions, thus improving heart function and overall quality of life.

REFERENCES

- Maron BJ. Clinical Course and Management of Hypertrophic Cardiomyopathy. N Engl J Med. 2018;379(7):655-668.
- American Heart Association (Accessed April 2024). Hypertrophic Cardiomyopathy. Retrieved from <https://www.heart.org/en/health-topics/cardiomyopathy/what-is-cardiomyopathy-in-adults/hypertrophic-cardiomyopathy>.
- Maron MS, Olivotto I, Betocchi S, et al. Effect of left ventricular outflow tract obstruction on clinical outcome in hypertrophic cardiomyopathy. N Engl J Med. 2003;348(4):295-303.

ACKNOWLEDGEMENT

All authors contributed to and approved the presentation.

Disclosures: All authors are employees of Premier Inc. This is an internally funded study.