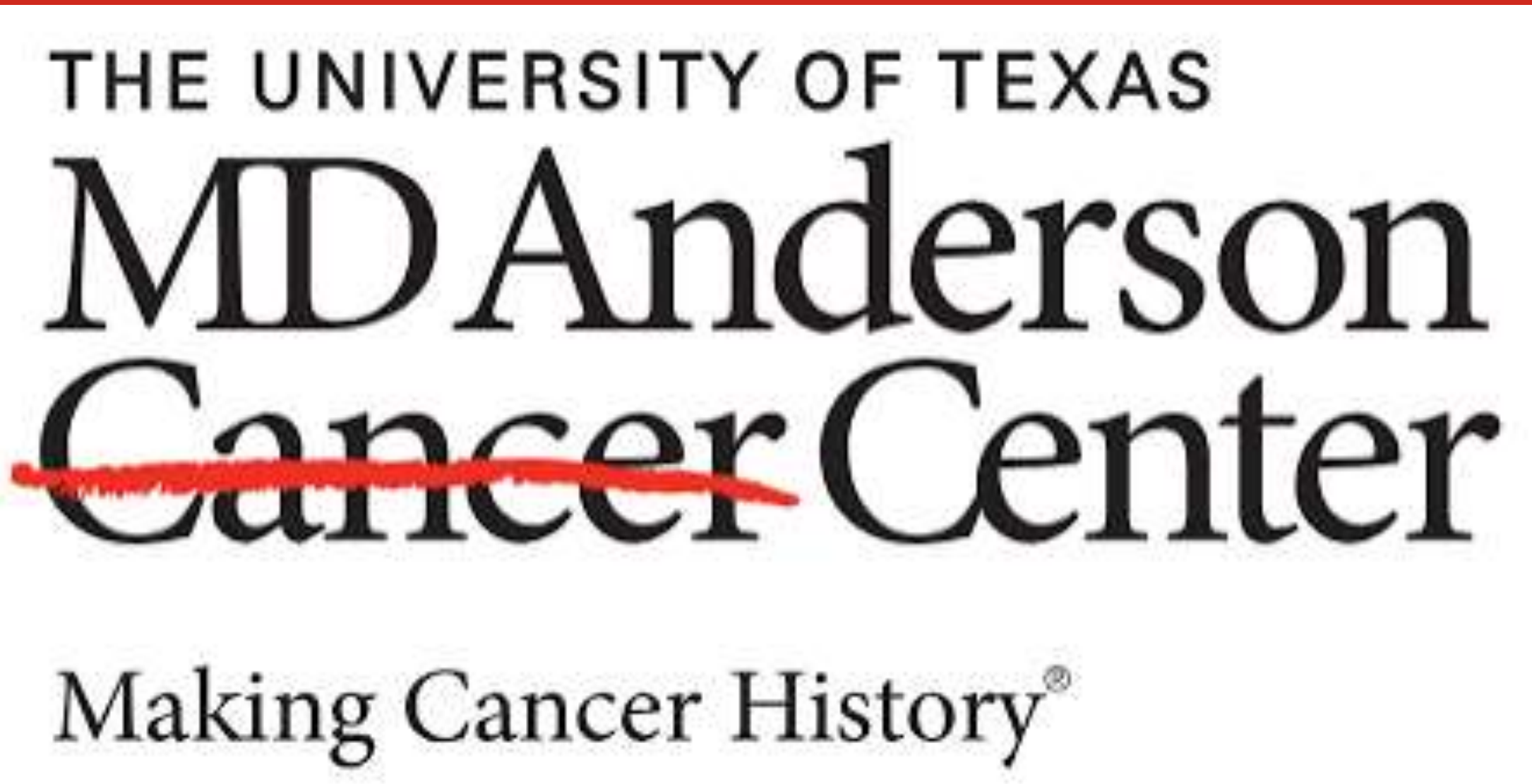


Racial and Demographic Factors Associated with Allogeneic Stem Cell Transplant Outcomes after Acute Myeloid Leukemia: A Propensity-Matched Analysis

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INTRODUCTION

Allogeneic stem cell transplant (SCT) after induction therapy for acute myeloid leukemia (AML) is the only consolidation strategy proven to prolong disease remission. Current guidelines recommend SCT for most Intermediate- and Adverse-risk AML, particularly after first complete remission (CR1).

AIM

To compare post-transplant outcomes between Black and White patients undergoing allogeneic SCT for AML, using a large real-world, propensity-matched cohort.

METHOD

- Data source & cohort:
- TriNetX real-world EHR database; ICD codes for AML and allogeneic SCT; adults >18 years; Race: Black/African American vs. White.
  - Study window: Jan 1, 2000 – Jan 2026; index event = date of SCT.
  - Initial cohort: 16,249 patients. After 1:1 propensity matching (age, sex, race), a final matched cohort of 2,294 Black patients who underwent SCT (with matched White comparators) was used for analysis.
- Outcomes assessed (90-day and 1-year):
- Overall survival, ICU admission, GVHD, hospital admission, sepsis, and pneumonia (Black vs. White).

CONCLUSIONS

Fewer Black patients underwent allogeneic SCT than White patients. Beyond this disparity in access, no significant differences in post-transplant outcomes (survival, ICU admission, GVHD, hospital admission, sepsis, pneumonia) were observed between groups.

This suggests societal and economic factors, rather than biological differences, may drive racial disparities in access to SCT — warranting further investigation and targeted intervention.

RESULTS

Outcomes compared between Black and White patients (90-day and 1-year), reported as Hazard Ratio (OS) or Risk Ratio, with 95% CI:

Overall Survival: 90-day HR 1.021 (0.847–1.229); 1-year HR 0.975 (0.870–1.089)

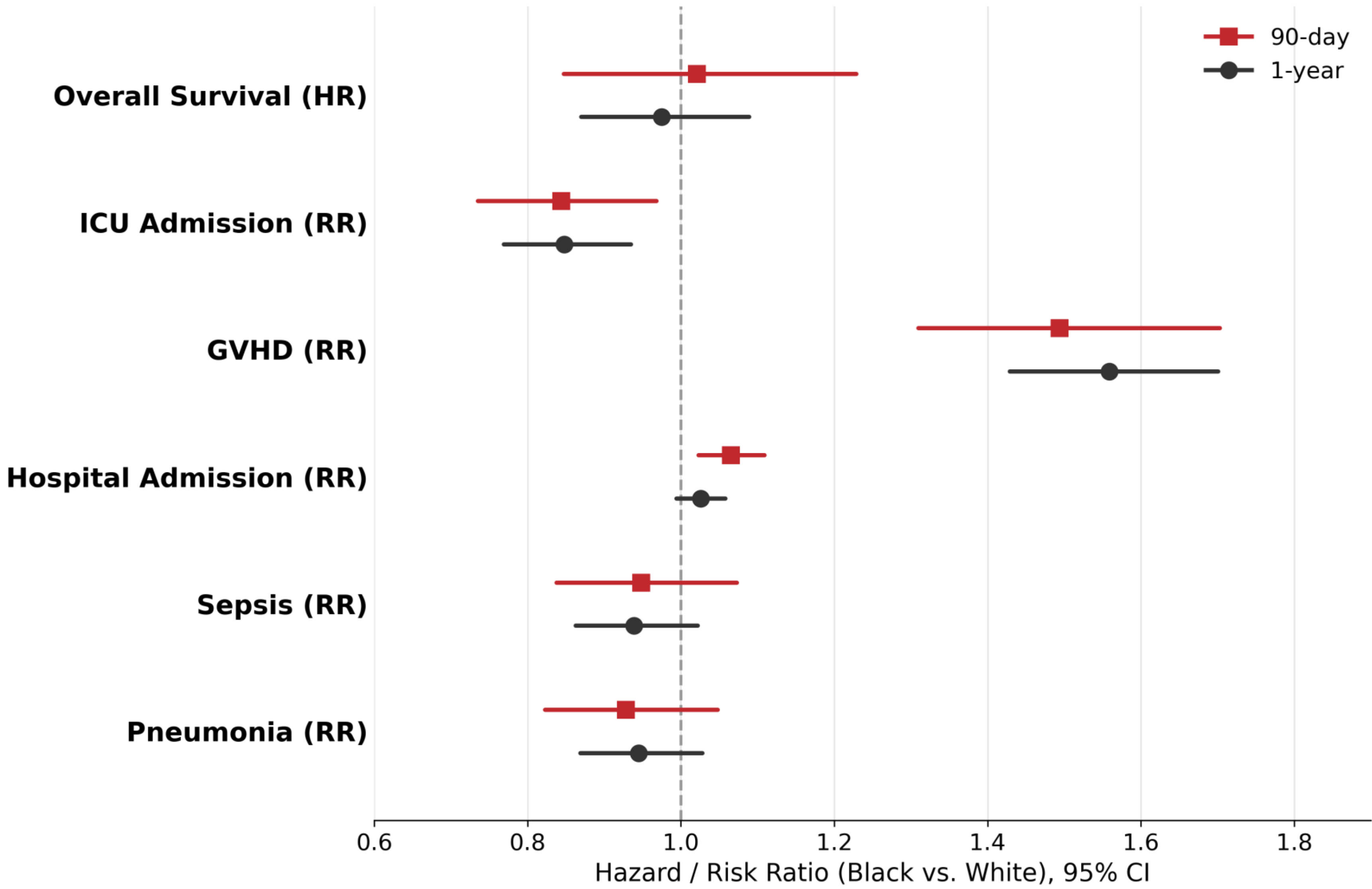
ICU Admission: 90-day RR 0.844 (0.735–0.968); 1-year RR 0.848 (0.769–0.935)

GVHD: 90-day RR 1.494 (1.310–1.703); 1-year RR 1.559 (1.429–1.701)

Hospital Admission: 90-day RR 1.065 (1.023–1.109); 1-year RR 1.026 (0.994–1.058)

Sepsis: 90-day RR 0.948 (0.838–1.073); 1-year RR 0.939 (0.863–1.022)

Pneumonia: 90-day RR 0.928 (0.823–1.048); 1-year RR 0.945 (0.869–1.028)



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