

Racial and Ethnic Differences in Disease Characteristics, Treatment Patterns, and Outcomes in Acute Myeloid Leukemia: A Real-World Single-Center Analysis

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INTRODUCTION

Racial and ethnic disparities in acute myeloid leukemia (AML) remain poorly characterized in diverse populations. Hispanic patients are a growing share of AML diagnoses in Texas, yet real-world data are limited.

AIM

To characterize racial and ethnic differences in AML presentation, treatment, and survival, and to examine whether race or ethnicity independently predicts mortality after accounting for disease biology and patient age, in the context of treatment received.

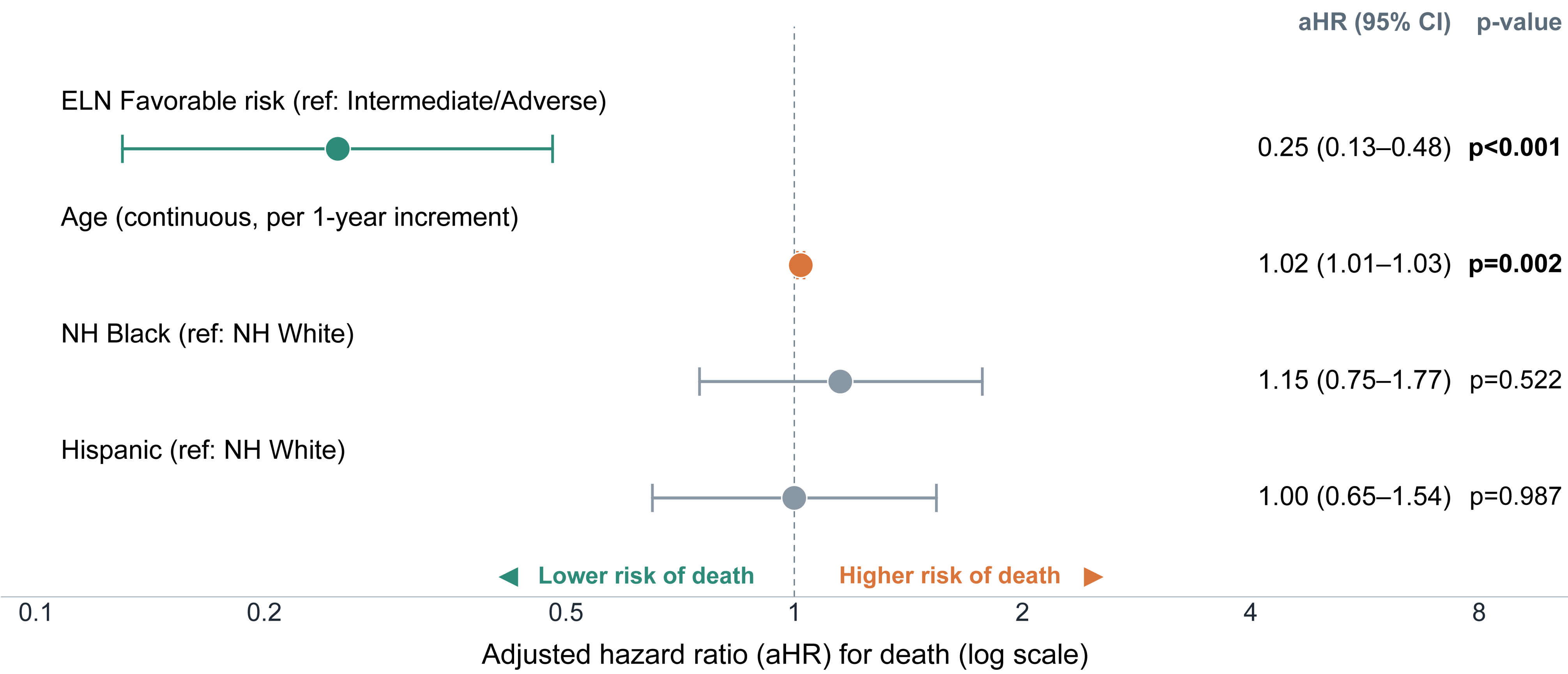
METHODS

Retrospective cohort study of 256 adults diagnosed with AML at Baylor St. Luke's Medical Center between 2017 and 2025 (Hispanic 25%, non-Hispanic White 46%, non-Hispanic Black 21%, Asian 6%). Baseline demographics, comorbidities, ELN 2022 risk, treatment intensity, and outcomes were compared across groups. Survival assessed by Kaplan-Meier / log-rank testing and multivariable Cox regression.

CONCLUSIONS

Groups differed in how AML presented, but not in outcome. Hispanic patients presented nearly a decade younger and showed a higher rate of APL, driving higher favorable-risk disease. Black patients carried a heavier burden of comorbidity and presentation complexity. After adjustment, race/ethnicity did not independently predict survival, supporting institutional equity. ELN favorable risk and older age were dominant predictors.

Race/ethnicity did not independently predict mortality



ELN risk per 2022 European LeukemiaNet criteria. Asian (n=16) and Other/Unknown-race (n=4) patients were excluded from this race/ethnicity model due to small subgroup size.

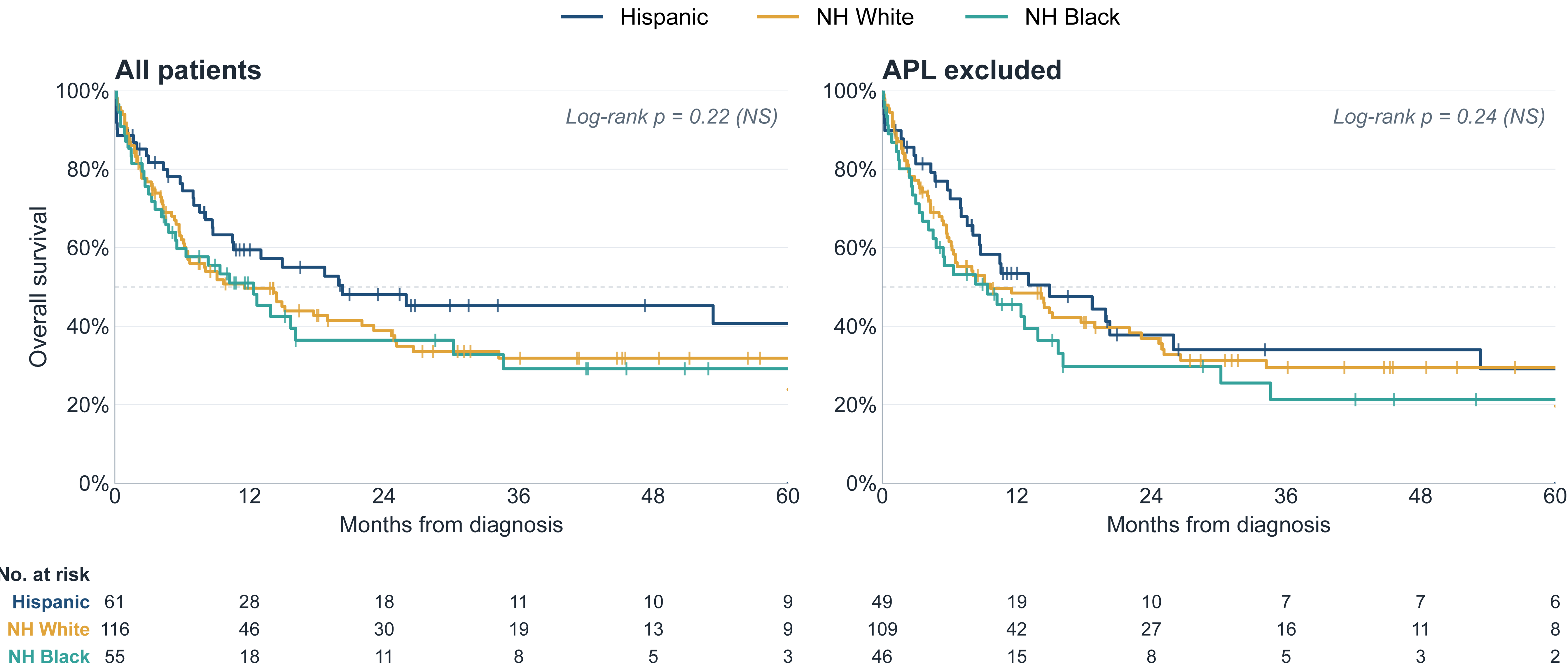
Baseline characteristics, comorbidity, and treatment by race/ethnicity

Characteristic	Hispanic	NH White	NH Black	p-value
Disease characteristics				
Median age at diagnosis, y	56.1	65.6	66.0	0.011
Acute promyelocytic leukemia (APL), %	19	6	16	0.010†
ELN 2022 favorable risk, %	52	29	46	0.023†
Comorbidity & presentation complexity				
Hypertension, %	49	56	75	0.020‡
Chronic kidney disease, %	11	17	33	0.029‡
Tumor lysis syndrome, %	8	16	35	0.015‡
Disseminated intravascular coagulation, %	17	13	27	0.045‡
Treatment				
Received intensive chemotherapy, %	49	53	36	0.061 (NS)‡

Bold values indicate p<0.05; NS = not significant.

† Hispanic vs NH White. ‡ NH Black vs NH White (Fisher's exact).

Overall survival was comparable across racial/ethnic groups



REFERENCES

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