

Age, Racial, and Ethnic-Based Disparities in Acute Erythroid Leukemia

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INTRODUCTION

Acute erythroid leukemia (AEL) is a rare and aggressive subtype of acute myeloid leukemia (AML) characterized by poor overall survival and limited population-level data regarding demographic disparities. Understanding the influence of age, race, and ethnicity on survival outcomes is essential for identifying vulnerable populations and improving equity in disease management.

AIM

To study the influence of age, race, and ethnicity on survival outcomes in AEL

METHOD

We conducted a multicenter retrospective study using TriNetX, a global database of de-identified electronic health records. Subsequently, 1:1 propensity score matching was performed including prior myeloid disorders, prior chemotherapy treatment, hypomethylating agents, venetoclax, and bone marrow transplant. Survival analysis was performed evaluating overall survival (OS) among patients diagnosed with AEL. Kaplan-Meier survival curves were generated to assess differences in 5-year survival according to age, race, and ethnicity. Comparisons between groups were analyzed using log-rank testing, with statistical significance defined as $p<0.05$.

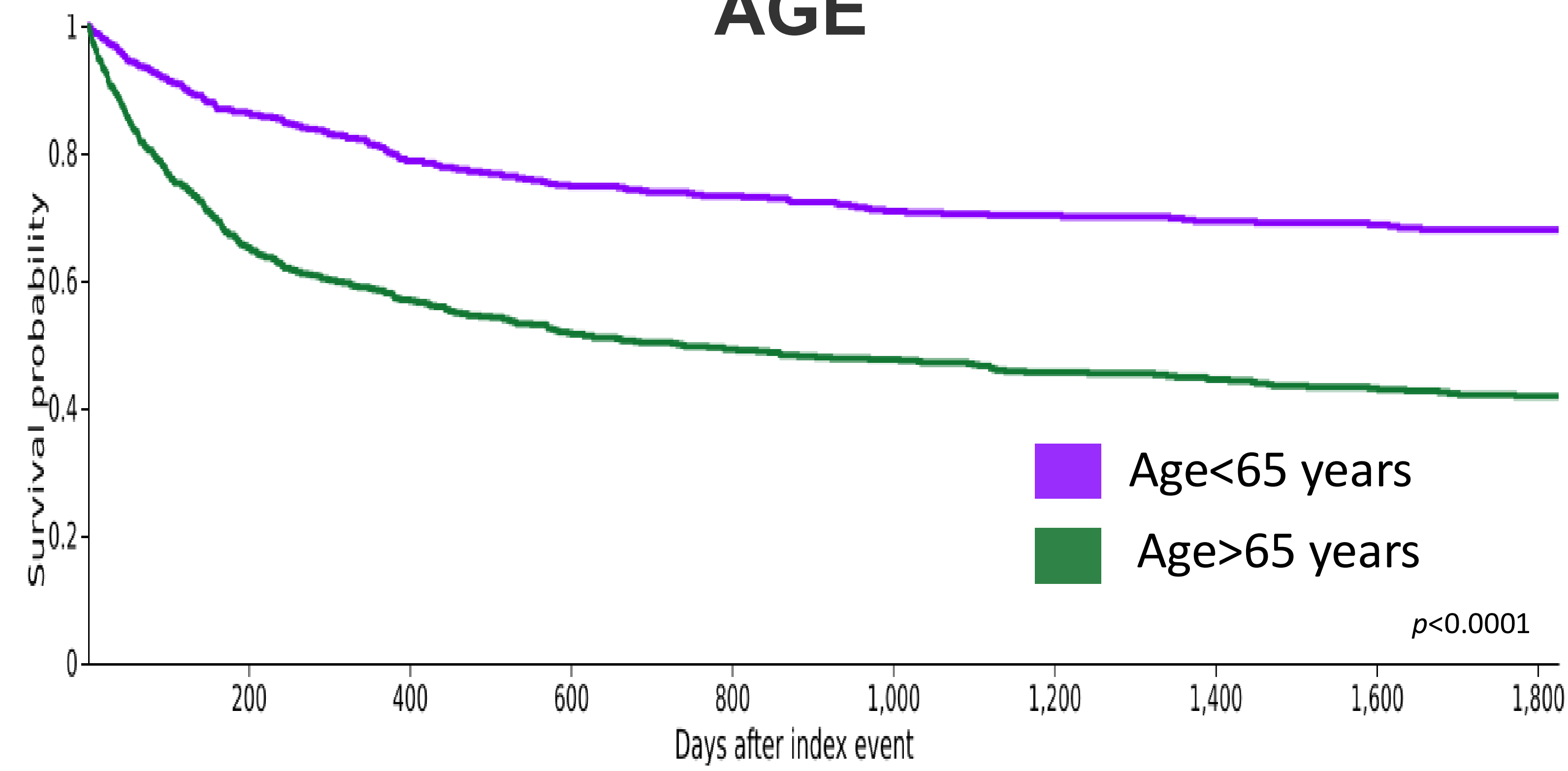
CONCLUSIONS

This study demonstrates significant disparities in survival among patients with AEL based on age, race, and ethnicity, consistent with previously reported disparities in AML. Older age, Black race, and non-Hispanic ethnicity were associated with markedly worse outcomes. These findings highlight the need for further investigation into the biological, socioeconomic, treatment access, and healthcare system factors contributing to these disparities. Targeted interventions are required to ensure equitable access to diagnosis, treatment, and supportive care which may help reduce survival inequities in acute leukemia.

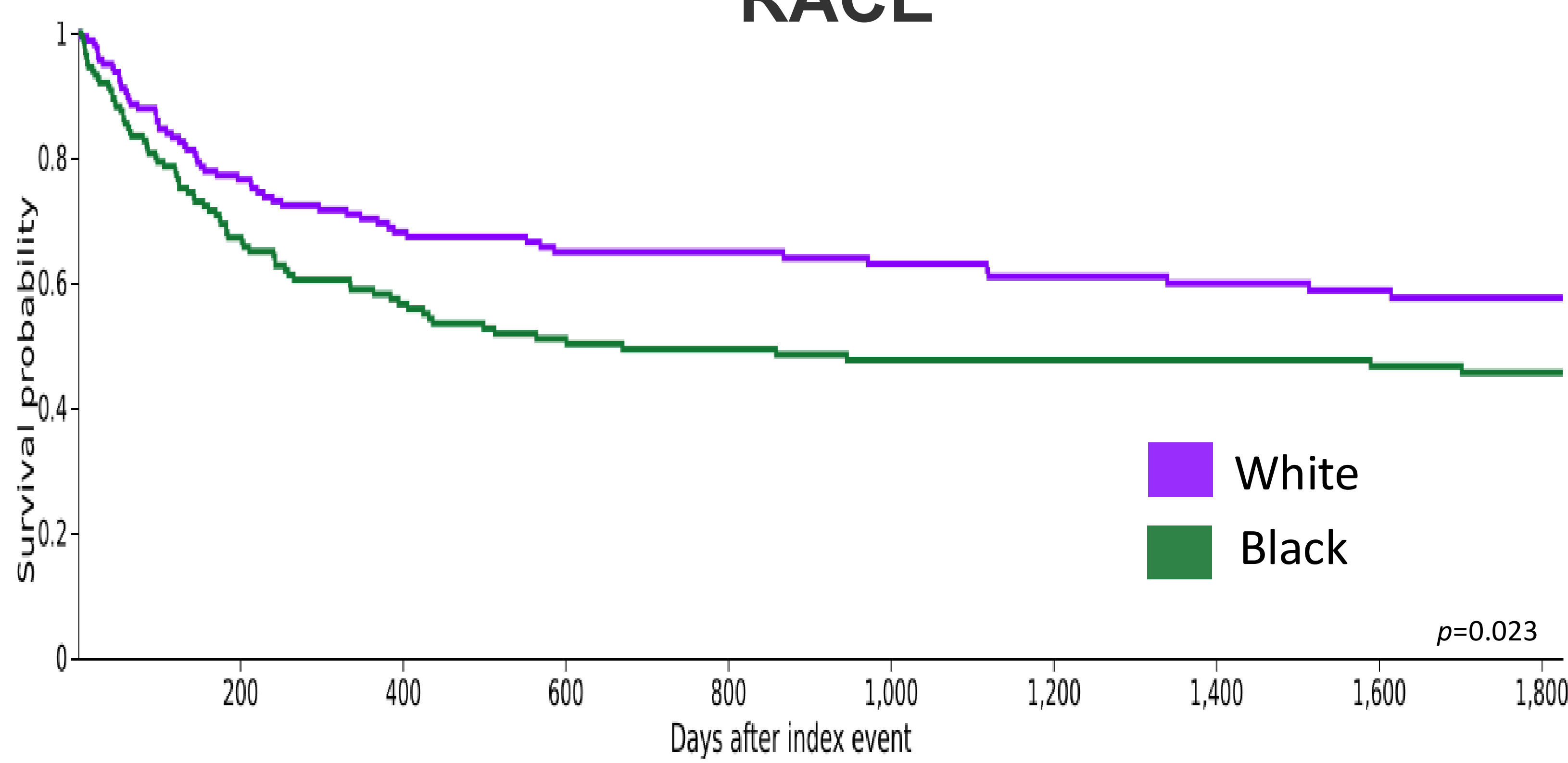
RESULTS

OVERALL SURVIVAL BASED ON:

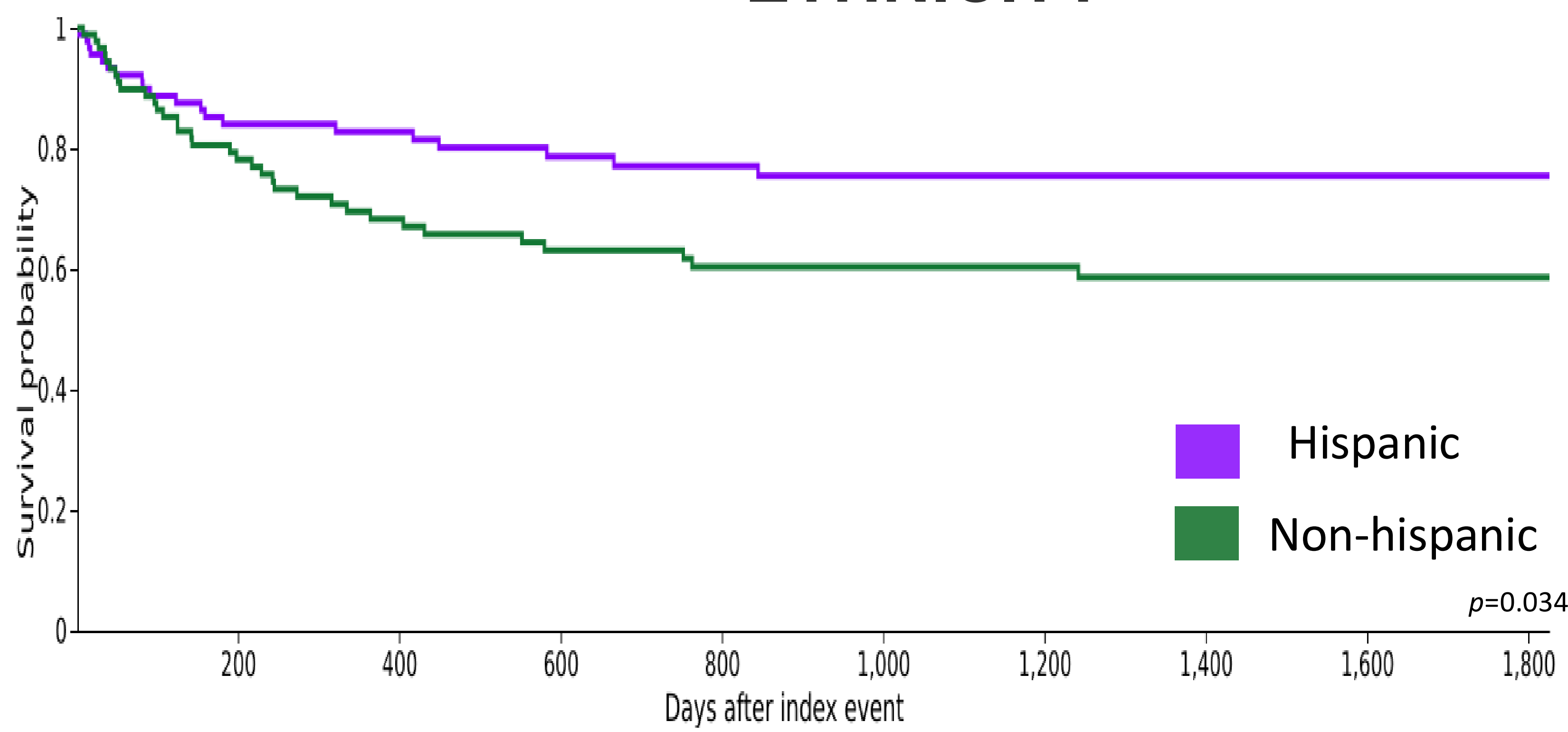
AGE



RACE



ETHNICITY



CONTACT INFORMATION

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