Socioeconomic and Geographic Disparities in Survival Outcomes Among Patients With Chronic Myelomonocytic Leukemia: A SEER-Based Analysis

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INTRODUCTION

- Chronic myelomonocytic leukemia (CMML) is a rare clonal hematopoietic stem cell disorder with overlapping myelodysplastic and myeloproliferative features.
- CMML is associated with poor survival outcomes.The influence of demographic, socioeconomic, and geographic factors on survival remains incompletely characterized.
- Identifying disparities may help define potentially modifiable barriers to equitable CMML care

AIM

To evaluate the association of:

- Sex
- Race/Ethnicity
- Household Income
- Geographic Residence with 5-year overall survival among patients with CMML in the United States.

METHOD

- Histologically diagnosed CMML using ICD-O-3 histology code 93.1.
- Retrospective population-based cohort study using the SEER Registry, 2000–2021.
- Primary endpoint: 5-year overall survival.
- Kaplan-Meier methods estimated survival; log-rank tests compared groups.
- Cox proportional hazards regression was used for multivariable modeling; survival was censored at 5 years.

CONCLUSIONS

- CMML survival was significantly associated with race/ethnicity, household income, and residential location
- Lower household income and rural residence were associated with worse 5-year overall survival
- Sex was not associated with significant survival differences.
- Findings highlight the need to address socioeconomic and geographic barriers to equitable CMML outcomes.

RESULTS

8,446
Patients with CMML met inclusion criteria

5,363 / 3,083
Male / Female patients

HR 0.98
Female vs male
95% CI 0.93–1.00; P=0.383

No difference
Sex was not associated with survival differences

KEY DISPARITY SIGNALS

HR 1.1
Income <$70,000 vs ≥$70,000
95% CI 1.0–1.1; P<0.001

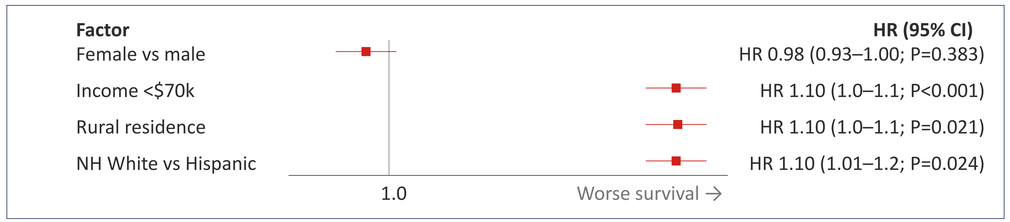
HR 1.1
Rural vs urban residence
95% CI 1.0–1.1; P=0.021

HR 1.1
Non-Hispanic White vs Hispanic
95% CI 1.01-1.2, p+0.024

Race/Ethinicity Distribution

Non-Hispanic White	**6,704**
Hispanic	**689**
Non-Hispanic Black	**512**
Non-Hispanic Asian/Pacific Islander	**514**
Non-Hispanic American Indian/Alaska Native	**27**

Multivariable Association With 5- Year Overall Survival



CONTACT INFORMATION

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REFERENCES

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Lower income and rural residence remained associated with worse survival, while sex did not show a significant difference.