UNDERSTANDING THE INFLUENCE OF SEX, RACE, INCOME, AND RESIDENCE ON MYCOSIS FUNGOIDES SURVIVAL: A TWO-DECADE ANALYSIS

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Introduction

- Mycosis Fungoides (MF) is the most common subtype of cutaneous T-cell lymphoma, characterized by malignant T-cell proliferation primarily affecting the skin.
- Despite advances in diagnosis and treatment, survival outcomes vary significantly among patient populations. Previous studies have suggested that sociodemographic factors such as race, income, gender, and geographic location may influence prognosis, yet comprehensive, population-level data remain limited.
- In this study, we utilized the Surveillance, Epidemiology, and End Results (SEER) database to evaluate the impact of these factors on cause-specific survival among patients diagnosed with MF between 2000 and 2021.

Objectives

- To assess how sex, race/ethnicity, income, and residence influence 5-year cause-specific survival in patients with Mycosis Fungoides using SEER data (2000–2021).

Aims

- To assess how sociodemographic factors affect survival in patients with Mycosis Fungoides.

Methods

- We analysed data from the Surveillance, Epidemiology, and End Results (SEER) registry, including patients diagnosed with MF (ICD-O 3 code 9700/3) from 2000 to 2021.
- Patients with missing or unknown race, income, or location were excluded. The primary outcome was 5-year overall survival (OS). Kaplan-Meier analysis was used to estimate OS, and Cox proportional hazards regression was applied for multivariable analysis.
- Differences between groups were assessed using the log-rank test, with hazard ratios (HRs) reflecting 5-year OS.

Results

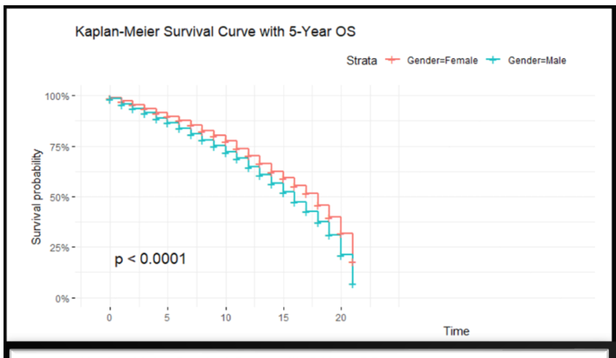
- **Sex:** Males had significantly worse survival compared to females (HR 1.3, 95% CI 1.2–1.4, p<0.001).
- **Race/Ethnicity:** Compared with Hispanics, non-Hispanic Black, White, and American Indian/Alaska Native patients had worse outcomes, while Asian/Pacific Islanders had comparable or slightly better survival.
- **Income:** Lower household income (<$70,000/year) was associated with increased mortality (HR 1.5, 95% CI 1.4–1.6, p<0.001).
- **Residence:** Rural residents had worse survival than urban residents (HR 1.4, 95% CI 1.2–1.5, p<0.001).

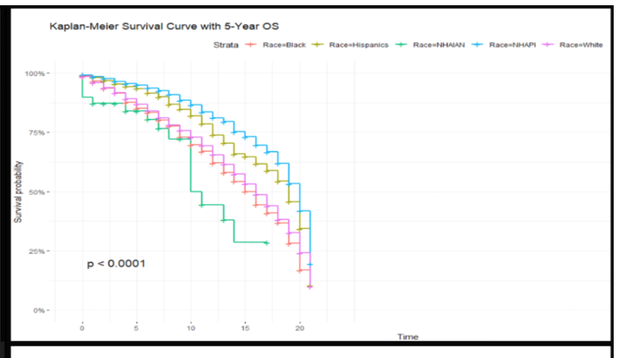
Category	Subgroup (n)	Hazard Ratio (HR)	95% CI	P-value
Total Patients	9,295	—	—	—
Sex	Males (5,339) vs Females (3,956)	1.3	1.2 – 1.4	<0.001
Race/Ethnicity	Hispanic (1,242) vs			
	Non-Hispanic American Indian/Alaska Native (39)	2.57	1.54 – 4.28	<0.001
	Black (1,357)	1.69	1.42 – 2.00	<0.001
	White (5,946)	1.54	1.32 – 1.79	<0.001
	Asian/Pacific Islander (711)	0.78	0.61 – 0.98	0.037
Income	<$70k vs ≥ $70k	1.5	1.4 – 1.6	<0.001
Residence	Rural (1,198) vs Urban	1.4	1.2 – 1.5	<0.001

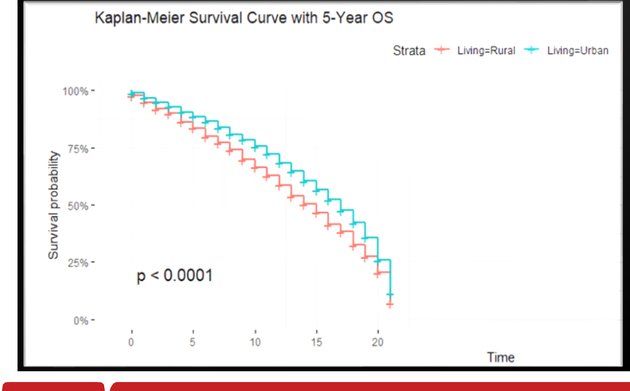
Conclusion

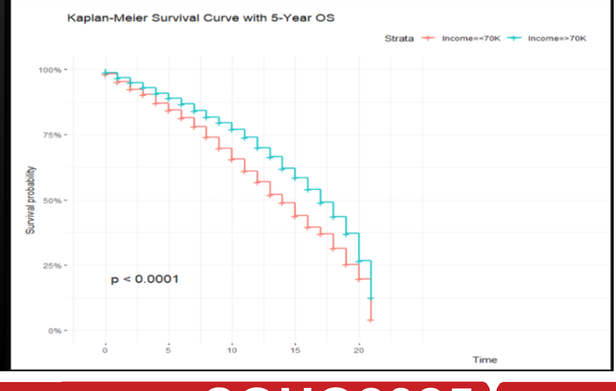
- Sociodemographic disparities including male gender, non-Hispanic race, low income, and rural residence were linked to worse survival in Mycosis Fungoides. Targeted strategies are needed to reduce these inequities.

Kaplen-Meier Curve









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