

National Utilization Patterns and Disparities in Stem Cell Transplantation Among Adult Hospitalizations With Systemic NK/T-Cell Lymphoma in the United States, 2016–2022

Sheikh Abdullah, MD¹ (presenting) • Benedict Amalraj, MD² • Mariana Marrero Castillo, MD³ • Shiva Jashwanth Gaddam, MD¹

¹Louisiana State University Health Shreveport, Shreveport, LA, USA • ²Tulane University, New Orleans, LA, USA • ³DHR Health, Edinburg, TX, USA

Background

- Stem cell transplantation (SCT) remains an important treatment strategy in systemic T-cell lymphoma.
- National admission-level data on SCT utilization and access disparities are limited.

Objective

To evaluate national trends, predictors, and inpatient outcomes of stem cell transplantation among adults hospitalized with systemic T/NK-cell lymphoma.

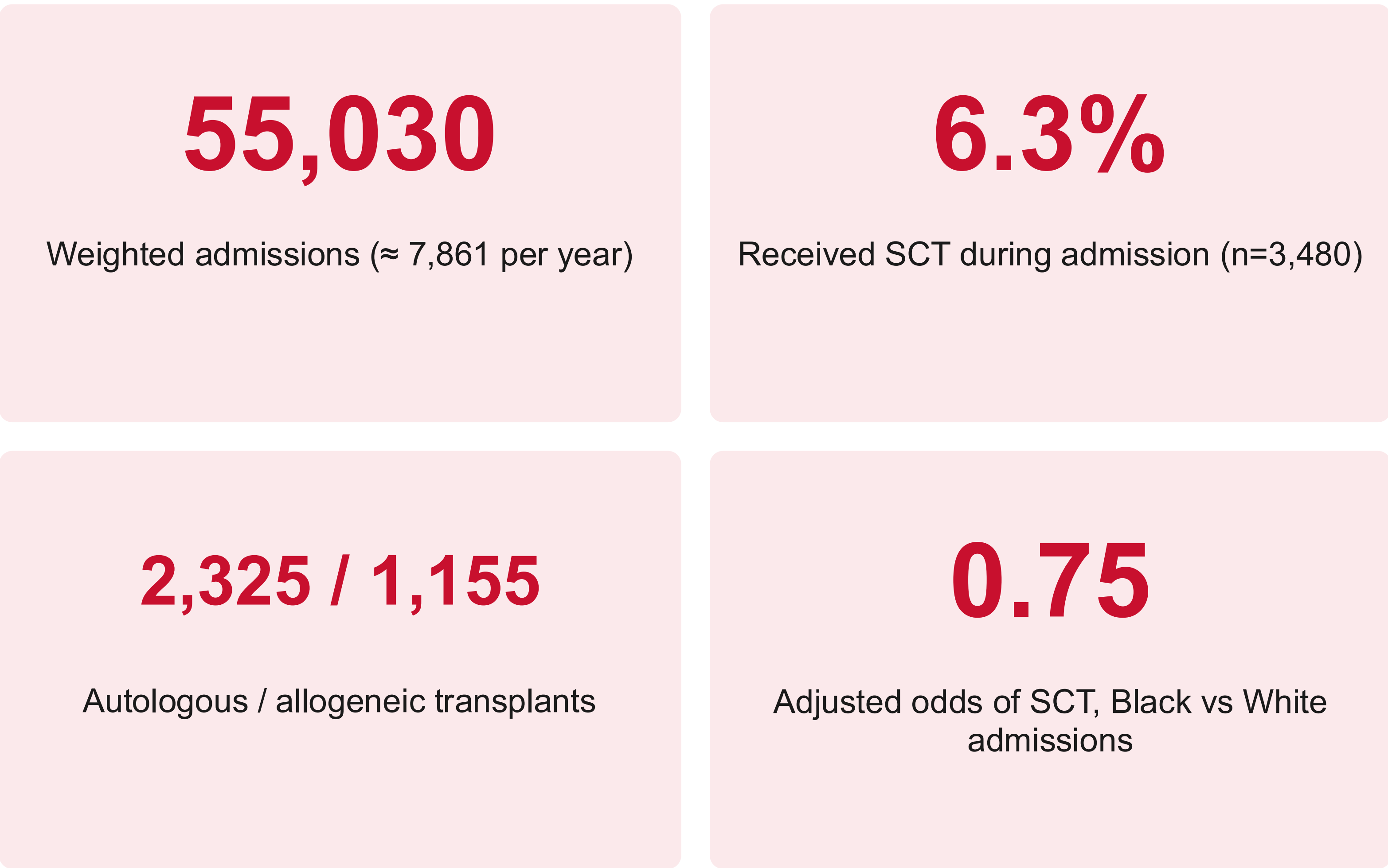
Methods

- Design: retrospective cross-sectional analysis of the HCUP National Inpatient Sample, 2016–2022 (US all-payer hospitalizations).
- Population: adult admissions with systemic T/NK-cell lymphoma identified by ICD-10-CM C84*/C86* diagnoses, excluding cutaneous entities (C84.0*, C84.1*, C84.A*).
- SCT identified using ICD-10-PCS autologous and allogeneic stem-cell procedure codes.
- National estimates incorporated discharge weights, strata, and clusters.
- Outcomes: any SCT; autologous versus allogeneic SCT; and associations with race, payer, ZIP-code income quartile, and hospital characteristics.
- Exploratory outcomes among SCT admissions: inpatient mortality, length of stay, and total charges.

Limitations

- Administrative coding cannot confirm severity, laboratory values, or treatment intent.
- The NIS counts admissions, not unique patients; no outpatient or post-discharge follow-up.
- Disease stage, histologic subtype, and transplant eligibility are unavailable.

Findings

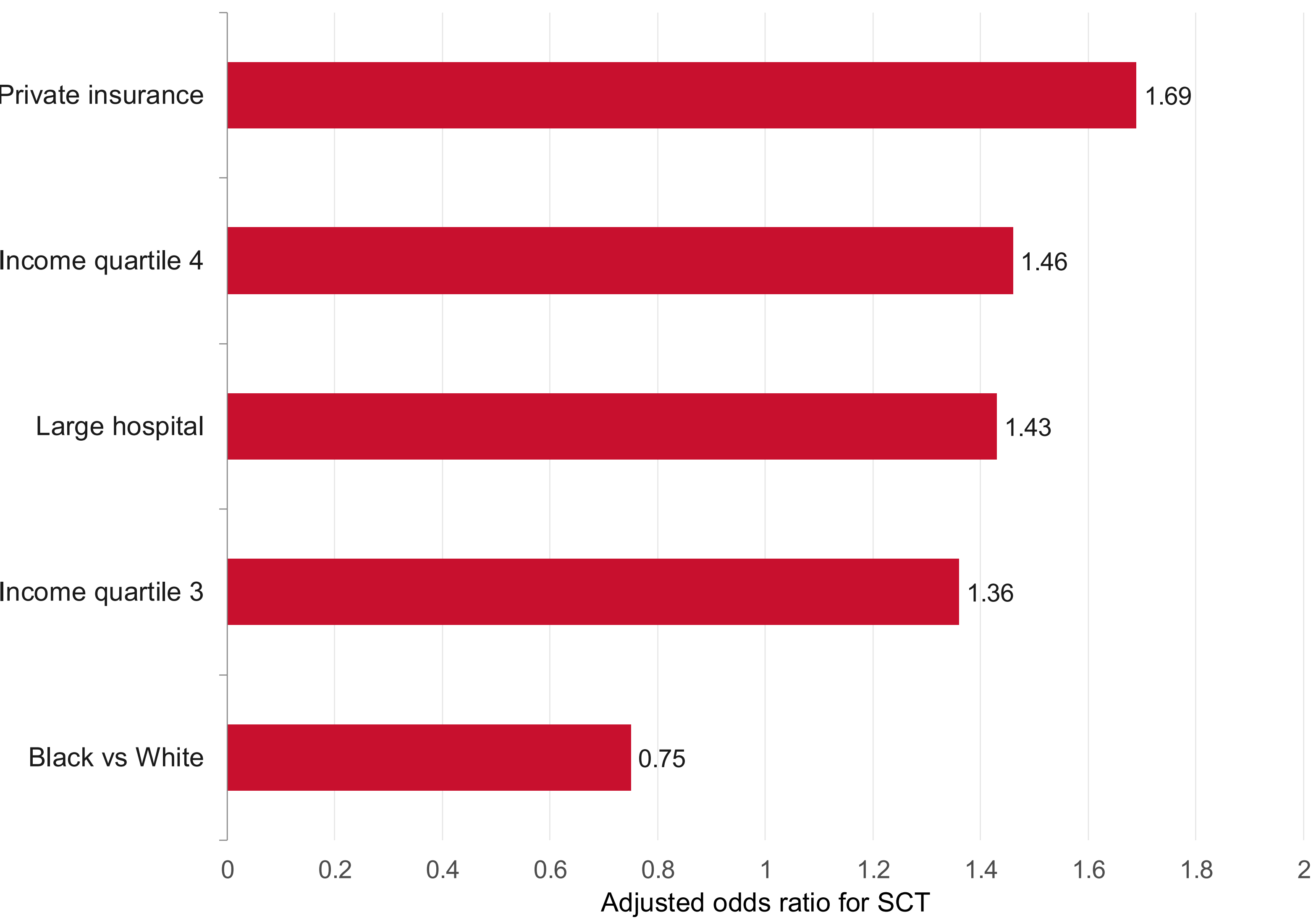


Predictors

Factor	OR (95% CI)	P
Black vs White	0.75 (0.56–0.99)	.044
Private insurance	1.69 (1.25–2.31)	.001
Income quartile 3	1.36	.036
Income quartile 4	1.46	.012
Large hospital	1.43	.026
Urban teaching	13.67 (1.81–103.11)	.011
SCT per year	1.03 (0.98–1.08)	.261

SCT rose from 5.4% (2016) to 7.3% (2020) and was 6.4% in 2022; the continuous trend was not significant.

Figure



Reference value is 1.00. Urban teaching hospital (OR 13.67) is omitted from the scale and reported in the table.

Transplant

Outcome	Allogeneic	Autologous
Admissions, n	1,155	2,325
Inpatient mortality	7.1%	1.3%

Adjusted allogeneic versus autologous: mortality OR 5.42 (95% CI 1.98–14.85; $P=.001$), length of stay +9.3 days ($P<.001$), charges +\$197,713 ($P<.001$).

Conclusions

SCT use in systemic T/NK-cell lymphoma was relatively stable overall but showed clear racial, socioeconomic, and hospital-level disparities. Autologous SCT predominated, whereas allogeneic SCT was less frequent and substantially more resource intensive.