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Demographic and Clinical Characteristics of Patients With Lymphoid and Hematopoietic Neoplasms Receiving Palliative Care: Insights From the National Inpatient Sample 2021

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INTRODUCTION

Patients diagnosed with lymphoid or hematopoietic neoplasms often require palliative care to manage symptoms and enhance quality of life. Understanding the demographic and clinical profiles of this population is crucial for optimizing care strategies and improving patient outcomes.

METHOD

Data were extracted from the National Inpatient Sample (NIS) database for the year 2021. Patients with a primary diagnosis of lymphoid or hematopoietic neoplasm were identified using appropriate ICD-10 codes.

CONCLUSIONS

This study provides valuable insights into the demographic and clinical characteristics of patients with lymphoid and hematopoietic neoplasms who received palliative care.

RESULTS

Among 102,930 adults admitted with lymphopoietic and haematological malignancies in 2021, 12,885 had a documented palliative care encounter. This indicates that approximately 12.5% of the population had a palliative care encounter. The average age of patients with a palliative care encounter was found to be 63 years. Approximately 57.2% of these patients were female and 42.8% were male. The racial distribution indicated 69.08% identified as White, 13.31% as Black, 10.14% as Hispanic, 3.18% as Asian, and 0.6% as Native American. The Charlson Comorbidity Index scores varied, with 0.43% having a score of 0, 0.23% with a score of 1, and 25.22% with a score of 2, while the majority (74.12%) had a score of 3 or more. Median household income quartiles based on patient ZIP codes showed a diverse distribution, with approximately 24.12% falling into the first quartile, 22.98% into the second quartile, 26.41% into the third quartile, and 26.49% into the fourth quartile. Hospital bed size categories revealed that most hospitals where patients received care were classified as large, with approximately 13.15% classified as small and 18.59% as medium. Multivariate analysis adjusted for age, gender, race, income quartile, hospital location, bed size, and teaching status revealed each one-year increase in age was associated with a 2.4% higher odds of a palliative care encounter (OR, 1.024; 95% CI, 1.018-1.030; $P < 0.000$). Similarly, each one-unit increase in Charlson Comorbidity Index score correlated with an 11.6% higher odds (OR, 1.116; 95% CI, 1.090-1.143; $P < 0.000$) of a palliative care encounter.

Category	Outcome	Value	Statistical Significance
Total Cases	Lymphoid and hematopoietic malignancies	102,930	
	Major depressive disorder	11,505	
Demographic Characteristics	Without major depressive disorder	88.82%	
	With major depressive disorder	11.18%	
Mortality Rates	Without major depressive disorder	7.08%	Pearson χ^2 = 5901.9603; P < 0.001
	With major depressive disorder	4.7%	
Adjusted Mortality Rates	Coefficient	-0.0242	P = 0.000; 95% CI, –0.0338 to –0.0146
Length of Stay	Increase in length of stay (days)	+0.87	Coefficient = 0.871; P = 0.016; 95% CI, 0.164-1.579
Covariates Adjusted For	Age, gender, race, income quartile, Charlson Comorbidity Index, hospital location, hospital region, teaching status, and hospital bed size		