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POSTER ABSTRACTS

203.LYMPHOCYTES AND ACQUIRED OR CONGENITAL IMMUNODEFICIENCY DISORDERS

Demographic and Regional Trends in Chronic Lymphocytic Lymphoma in Older Adults in the United States between 1999 and 2020

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Introduction: Chronic lymphocytic leukemia (CLL) accounts for the highest number of leukemia diagnoses in adults over 19 and nearly 25% of new adult leukemia cases. CLL commonly affects older adults with a median age of 70 at diagnosis. Although the 5-year survival rate of CLL is high at 88%, there are disparities among various groups within the United States (U.S.) with marginalized groups experiencing lower survival than their counterparts. Currently, no study has assessed geographic and demographic trends in CLL mortality in older adults (65+) in the U.S. Our aim was to analyze demographic differences and trends in CLL mortality in older adults (65+) within the U.S. between 1999 to 2020.
Methods: The CDC (Centers for Disease Control) Wonder database was used to determine mortality statistics for patients, 65 years or older, with an underlying cause of death from CLL (ICD-10 code C91.1) between 1999 and 2020. Age-adjusted mortality rates (AAMR) were calculated per 100,000 deaths. The AAMR was calculated by demographic variables such as race (Hispanic, Non-Hispanic Black, Non-Hispanic White), population density (Urban, Suburban, Rural), sex, state, and U.S. census region. Joinpoint regression software was used to identify temporal trends. Average annual percent change (APC) was considered statistically significant if $p < 0.05$.
Results: Between 1999 and 2020, CLL accounted for 85,371 deaths in adults 65 years or older. During this time, the overall AAMR decreased by 30% from 11.2 to 7.8 with an APC of -1.7% ($p<0.05$). In 1999, men had an AAMR of 16.1, nearly double the female AAMR of 8.1. By 2020, both groups experienced a drop in AAMR with men at 11.4 and females at 5.1. Both groups experienced a significant drop in overall APC with a drop of -1.7 for men and -2.1 for females. Non-Hispanic Whites had the highest AAMR at 11.9 and had a decrease in APC at -1.4 ($p<0.05$). Non-Hispanic Blacks had an AAMR high of 9.6 and had the highest decrease in APC at -2.4 ($p<0.05$). Hispanic individuals had an AAMR high of 4.4 and had the lowest decrease in APC at -1.3 ($p<0.05$). Analysis by population density revealed the highest decrease in APC occurring in urban populations at -2.3 ($p<0.05$), and the lowest decrease in rural populations at -1.2. All census regions (Northeast, Midwest, South, and West) had significant drops in APC with the South having the largest decrease in APC at -2.1 ($p<0.05$) and the Northeast having the lowest drop in APC at -1.5 ($p<0.05$). States in the 90th percentile of mortality included Iowa, North Dakota, and South Dakota, whereas Hawaii, Nevada, and New Mexico were in the 10th percentile of mortality.
Conclusions: Although the mortality rate for CLL in the U.S. has been decreasing since 1999, there are differences in the rate of decrease apparent amongst various demographic groups. This may be due to several factors, including longer travel times to see oncologists in rural areas or lack of access to newer treatments for these patients. Given that the typical presentation for CLL is asymptomatic and that there are few identifiable risk factors for CLL it has made identification of vulnerable patients challenging. However, demographic background may help to identify potential patients at risk for developing and experiencing higher mortality rates due to CLL.

Disclosures No relevant conflicts of interest to declare.

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