

TRENDS IN MORTALITY FROM DIFFUSE LARGE B-CELL LYMPHOMA IN NORTHERN BRAZIL (2019–2023).

Maria Eduarda Sofia Vieira França^{1*}, Danilo Pereira Pinheiro¹, Bruna Katrine da Costa¹, Sérgio Beltrão de Andrade Lima², Helem Ferreira Ribeiro³, Danielle Cristinne Azevedo¹, Symara Rodrigues Antunes¹.

¹ Centro Universitário Metropolitano da Amazônia – UNIFAMAZ, Belém, Pará, Brazil.

² Universidade Federal do Pará – UFPA, Altamira, Pará, Brazil.

³ Universidade do Estado do Pará – UEPA, Marabá, Pará, Brazil.

Introduction: Diffuse large B-cell lymphoma (DLBCL) is one of the most prevalent subtypes of non-Hodgkin lymphoma (NHL), characterized by aggressive clinical behavior and high mortality rates in the absence of early treatment. Globally, NHL accounts for approximately 4% of all cancers, with an estimated incidence of 7.5 per 100,000 individuals per year. In Brazil, the incidence rate is 9.1 per 100,000, with DLBCL comprising approximately 30–35% of cases. This context underscores the importance of regional analyses to inform public health policies and early diagnostic strategies.

Objective: To analyze mortality due to DLBCL in the Northern Region of Brazil from January 1, 2019, to December 31, 2023, by year of occurrence, sex, age group, and federative unit. **Methods:** This is a descriptive, retrospective epidemiological study using data from the Mortality Information System (SIM), accessed via the TABNET/DATASUS platform. Records coded as ICD-10 C83.3 were included from all seven states in the Northern Region (Acre, Amapá, Amazonas, Pará, Rondônia, Roraima, and Tocantins) for the period between 2019 and 2023. Variables analyzed included year of death, sex, age group (<20; 20–39; 40–59; ≥60 years), and state. Absolute number of deaths and crude mortality rates per 100,000 population were calculated based on IBGE population estimates for 2023. Linear regression was applied to assess temporal trends, and the chi-square test was used to compare rates among states. **Results:** A total of 1,203 deaths from DLBCL were recorded in the Northern Region during the study period, with an average annual increase of 3.2%. The state of Pará accounted for 38% of deaths (n = 457), followed by Amazonas (22%; n = 265); the remaining states contributed between 5% and 10% (n = 60–120). There was a predominance of male deaths (male-to-female ratio of 1.4:1) and a higher occurrence among individuals aged 60 years and older (72%; n = 866). Crude mortality rates ranged from 1.8 to 4.5 per 100,000 inhabitants, with the highest rates in Pará (4.5) and the lowest in Roraima (1.8). Based on place of residence, Pará showed a significant annual increase of 5.1% (p < 0.05), while Amapá and Roraima maintained stable trends. These findings suggest that unequal access to

diagnosis and treatment may influence regional mortality patterns. **Conclusion:** Mortality from DLBCL in Northern Brazil increased between 2019 and 2023, particularly in more populous states and among the elderly. The findings underscore the need to strengthen epidemiological surveillance, promote early diagnosis, and expand access to treatment. Additionally, investigating socioeconomic and structural factors affecting disease management is essential to inform more effective public health policies.

Keywords: Diffuse large B-cell lymphoma; Epidemiology; Northern Brazil.