

MORBIDITY AND MORTALITY CAUSED BY NEOPLASMS IN THE PEDIATRIC POPULATION IN NORTHERN BRAZIL

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Introduction: Neoplasms are significant causes of morbidity and mortality in Brazil, especially in childhood, as this stage represents a foundational period of physical, cognitive, and emotional development. These diseases have substantial impacts on both public and supplementary healthcare systems. Therefore, early diagnosis and timely treatment are crucial determinants of health outcomes for these patients, but they remain a challenge in regions with serious socioeconomic and healthcare infrastructure deficits. **Objective:** The aim of this study was to describe the epidemiological profile of neoplasms in children and adolescents in the northern region of Brazil over the past 10 years. **Methods:** This descriptive, cross-sectional and observational epidemiological study analyzed secondary data from SIH/SUS, provided through DATASUS, for the period from January 2015 to December 2024. Inclusion criteria comprised individuals aged 0 to 19 diagnosed with malignant neoplasms, hospitalized in the Northern region of Brazil, with available hospitalization and mortality data recorded in SIH/SUS during the study period. Exclusion criteria included cases of benign or in situ neoplasms and unregistered data in SIH/SUS. Simple descriptive statistics were applied, using absolute and relative frequencies. Hospitalizations and mortality rate were analyzed by age group, sex, race, geographic location, and type of neoplasm. **Results:** In the analyzed interval, the total number of hospitalizations in Brazil due to neoplasms in the pediatric population was 509,436, with 31,337 from the Northern region. The 15 to 19 age group was the most affected, with 6,571 hospitalizations, followed by the 5 to 9 years group with 8,720 cases. Children under 1 year old had the fewest hospitalizations, with 935 cases. Leukemia was the neoplasm with the highest admissions (16,324), followed by Malignant Neoplasms of Bone and Articular Cartilage (3,031) and Malignant Neoplasm of the Brain (1,778). The year 2024 had the most cases (3,921), succeeded by 2023 (3,811), and 2022 (3,511). The years with the fewest cases were 2014 (267), 2015 (1,834), and 2016 (2,175). Males were more affected than females, with 18,469 and 12,868 hospitalizations, respectively. The pardo population had the most cases (24,204), while the indigenous population had the fewest (232). Pediatric patients had lower mortality rates compared to adults and the elderly, with the highest rates in the under 1 year old age group (11.34), succeeded by 15 to 19 years old (5.77). The highest mortality rates were Malignant Neoplasms of the

Prostate (30.77) and Malignant Neoplasm of Other and Unspecified Portions of the Uterus (16.67). Females had a higher mortality rate (4.64) than males (4.15). The indigenous population had the highest mortality rate (11.21), followed by the pardo population (4.17). **Conclusions:** These findings highlight the importance of strategic resource management, with an emphasis on early diagnosis and appropriate treatment. In particular, with regard to the indigenous pediatric population, a high mortality rate was observed, which, when compared to other social groups, further points to the disparities in access to healthcare. Consequently, the results reinforce the critical need for targeted interventions in order to reduce cancer mortality and ensure comprehensive healthcare for the pediatric population.

Keywords: Epidemiology; neoplasms; pediatrics.