Headache Medicine 2026, Supplement ▪ p-ISSN 2178-7468, e-ISSN 2763-6178

Headache Medicine

ID: 127

# Epidemiological profile of hospitalizations for headache associated with hypertensive diseases in northeast Brazil between 2019 and 2024

**Maria Eduarda Parente Campos[1], Marcela Silveira Fontes Andrade[1], Rafaela Baptista de Almeida Bastos[1], Gabriela Nora Ribeiro Pires[2], Ana Luiza Conceição Carvalho[1], Ana Raquel Matias dos Santos[1], Lara Samira Abreu da Silva[1], Giovanna Rocha de Souza[1], Sanny Lara de Oliveira Santana[1], Arthur Vinicius Feitosa Santos[1], David Alysson Santos[2], Gustavo Ubirajara Cunha Santos Filho[1]**

[1]Tiradentes University, Aracaju, Sergipe, Brazil
[2]Federal University of Sergipe, Aracaju, Sergipe, Brazil

Maria Eduarda Parente Campos
maria.parente@souunit.com.br

**Introduction**
Headache is a frequent neurological manifestation and an important cause of hospital visits and admissions. Besides primary forms, it can be associated with hypertensive diseases, especially uncontrolled blood pressure, increasing the risk of neurological and cardiovascular complications. In Northeast Brazil, demographic and epidemiological factors related to hypertension control influence the profile of hospitalizations due to headache.

**Objective**
To analyze the temporal trend and epidemiological profile of hospitalizations due to headache associated with hypertensive diseases in Northeast Brazil between 2019 and 2024.

**Methods**
Epidemiological, descriptive, and quantitative study based on data from the Hospital Information System (SIH/SUS). Hospitalizations for "Migraine and other headache syndromes," "Essential (primary) hypertension," and "Other hypertensive diseases" (ICD-10) registered in the Northeast region of Brazil between 2019 and 2024 were included. The variables analyzed were year of care, region, sex, age group, and race/ethnicity. The data were subjected to quantitative descriptive analysis to characterize the sociodemographic distribution and frequency of hospitalizations.

**Results**
Between 2019 and 2024, there were 418,570 hospitalizations in Brazil due to migraine, headache syndromes, and hypertensive diseases, showing a decreasing trend. In 2019, there were 78,515 cases, whereas in 2024, the number reached 63,942, with a peak in 2019. A reduction was observed between 2020 and 2021, with 70,559 and 65,490 records, respectively, followed by a decline in subsequent years. Essential hypertension accounted for 58.0% of cases, other hypertensive diseases 26.9%, and migraine 15.1%. Regional analysis revealed that 35.83% of hospitalizations occurred in the Northeast, 31.19% in the Southeast, and 14.74% in the South. Females predominated, accounting for 58.3% of cases, with higher frequencies in migraine (65.9%). Concerning age, the highest concentration occurred among individuals aged 60 to 69 years (20.4%), followed by 70 to 79 (18.0%). Migraine predominated among younger adults, especially those aged 30 to 39 (17.9%). Regarding race/ethnicity, mixed-race ("pardos") predominated (48.81%), followed by White (27.59%), Black (5.24%), Asian (2.94%), and Indigenous (0.17%). Records lacking ethno-racial info totaled 15.22%. As for mortality, there were 14,834 deaths, decreasing from 2,752 in 2019 to 2,234 in 2024, a 0.81-fold decrease.

**Conclusion**
The findings showed more hospitalizations in the Northeast, mainly among females and brown individuals. Headache crises mostly affected young adults, while hypertensive diseases predominated in the elderly. The results highlight the need for public policies on headache management and hypertension control. The high rate of missing race/ethnicity data also indicates the need for more reliable hospital reporting.

**Keywords:**
Headache
Hypertension
Health profile

© Copyright 2025