Headache Medicine

ID: 240

Status migrainosus in Brazil: trends in hospitalizations and in-hospital case fatality in the Public Health System from 2020 to 2025

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Introduction
According to the International Classification of Headache Disorders (ICHD-3), status migrainosus is a neurological emergency defined by debilitating migraine attacks lasting more than 72 hours. Its pathophysiology remains poorly understood, and high-quality evidence-based treatments are limited, demanding considerable healthcare resources and hospitalizations. In Brazil, indicators suggest a strong relationship with sociodemographic aspects, showing a considerable annual increase in admissions between 2020 and 2025.

Objective
To analyze temporal trends in hospitalizations and in-hospital case fatality due to status migrainosus (ICD-10 G43.2) in Brazil from 2020 to 2025 using data from the Brazilian Unified Health System (SUS). It also aims to describe the sociodemographic profile and regional distribution, calculate case fatality, and investigate factors associated with the annual increase in admissions.

Methods
This ecological, retrospective time-series study used secondary data from the Hospital Information System (SIH/SUS) via DATASUS. We included all hospitalizations in Brazil between 2020 and 2025 with a primary diagnosis of status migrainosus (ICD-10 G43.2). Variables included the absolute number of hospitalizations, in-hospital deaths, geographic region, sex, and age group. Hospitalization rates per 100,000 inhabitants and overall case fatality rates were calculated. Temporal trends were assessed using quasi-Poisson regression to estimate the Annual Percent Change.

Results
Between 2020 and 2025, Brazil recorded 23,212 status migrainosus hospitalizations, with a cumulative rate of 1.83 admissions per 100,000 person-years and 313 in-hospital deaths, resulting in an overall case fatality rate of 1.35%. Admissions progressively increased from 3,399 in 2020 to 4,350 in 2025. Regionally, the Northeast had the highest admission volume (n=9,994) and cumulative rate (2.93/100,000), followed by the South (2.86/100,000). While the Northeast and South remained temporally stable, the North, Southeast, and Central-West showed a statistically significant increase in admissions. Females predominated (64.6%), showing higher hospitalization rates than males and a significant increase over the period. Admissions were primarily concentrated among adults aged 20-39 years, although the highest cumulative rate was observed in individuals aged 60 or older.

Conclusion
Status migrainosus exhibited a progressive increase in hospitalizations within the Brazilian public health system between 2020 and 2025, predominantly affecting women and working-age adults, with the Northeast region bearing the highest burden. These findings highlight regional disparities and the growing healthcare burden on the SUS, underscoring the urgent need for strengthened outpatient management, early intervention, and improved access to specialized neurological care.

Keywords:
Hospitalization
Epidemiology
Unified Health System
Status migrainosus
Neurological emergency

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