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

Headache Medicine

ID: 218

Pediatric and adolescent hospitalizations for primary headaches in the Brazilian Public Health System

Maria Thereza Corrêa Gondim Bezerra Rodrigues[1], Matheus Fausto Barbosa Gonçalves[1], Victor Matheus Soares da Silva[2], Maria Luiza Fragoso Pereira Neta[1], Ana Clara Sobeira Moura[1], Norma Rafaella Uchôa Espíndola[1], Grazielly Rodrigues Torres[1], Emily Maria Soares da Silva[3], Camily Vitoria da Silva de Melo[4], Miguel Angel Eugenio Vela[2], Pedro Henrique Simões de Melo Barbosa[2], Maria Clara Domingos Arruda Campos[5], Francielly de Oliveira Rodrigues[2], Thaysa Rayanna Santos Batista[2], Lucas Henrique Chaves Cabral da Costa Cavalcanti[2]

[1]Afya School of Medical Sciences of Jaboatão dos Guararapes, Jaboatão dos Guararapes, Pernambuco, Brazil
[2]Maurício de Nassau University Center, Recife, Pernambuco, Brazil
[3]Olinda School of Medicine, Olinda, Pernambuco, Brazil
[4]Maurício de Nassau University Center, Caruaru, Pernambuco, Brazil
[5]Afya School of Medical Sciences of Garanhuns, Garanhuns, Pernambuco, Brazil

Maria Thereza Corrêa Gondim Bezerra Rodrigues
mtherezagondim@gmail.com

Introduction
Primary headaches in children and adolescents are frequently underdiagnosed and undertreated. When a pediatric patient requires hospitalization for a benign primary headache, it usually indicates a severe failure in outpatient prophylaxis, school-level health education, or an intractable crisis, such as status migrainosus. Hospitalizing a child or adolescent carries high psychosocial costs, causes school absenteeism, and exposes the pediatric patient to nosocomial risks. Understanding the epidemiological profile of this specific demographic within the Brazilian Public Health System (SUS) is crucial for developing targeted pediatric triage protocols and preventive strategies.

Objective
To analyze the epidemiological profile, gender distribution, and the average length of hospital stay of pediatric and adolescent patients (0 to 19 years old) admitted for primary headache or migraine (ICD-10 G43 and G44) in the SUS between 2019 and 2023.

Methods
A national, retrospective, and descriptive epidemiological study was conducted using official microdata from the Hospital Information System (SIH/DATASUS). The data, encompassing the 2019-2023 period, were processed in RStudio. From the total universe of headache admissions, the cohort was filtered to include only patients aged 0 to 19 years. The analyzed variables included absolute admission volume, gender prevalence (to observe the onset of hormonal disparities), admission character (elective vs. urgency), and mean length of stay in days.

Results
Out of the 51,306 total national admissions in the five-year period, 4,874 records (9.5%) corresponded to the pediatric and adolescent population (0-19 years). Within this group, a clear female predominance was already evident, representing 68.2% of the cases, a disparity strongly driven by the 12-19 age bracket, coinciding with the onset of hormonal triggers. The average length of hospital stay for this young cohort was 3.2 days. Alarmingly, 97.8% of these pediatric admissions occurred on an urgent/emergency basis, with almost zero elective admissions for investigation.

Conclusion
The hospitalization of nearly 5,000 children and adolescents for inherently benign primary headaches highlights a critical gap in pediatric outpatient neurology. The massive percentage of emergency admissions indicates that the emergency room is acting as the primary point of care for pediatric pain, rather than the basic health units. The 3.2-day average stay represents a significant burden of school absenteeism and psychosocial stress. Strengthening pediatric primary care, training pediatricians in early migraine prophylaxis, and implementing school-based pain education are essential steps to intercept these crises and prevent early, unnecessary hospitalizations.

Keywords:
Length of stay
Pediatric neurology
Primary headache

© Copyright 2025