

Abstract

Critical Gaps in Stroke Care: A Call for Urgent Reform in Laboratory Protocols and Diagnostic Access in Brazil [†]

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Introduction: Stroke remains a leading cause of morbidity and mortality in Brazil, requiring rapid and effective responses from the initial point of care. This study evaluated adherence to national laboratory guidelines for etiological investigation in stroke cases, highlighting systemic failures that compromise patient outcomes. **Methodology:** A pilot observational, cross-sectional, and analytical study included patients diagnosed with primary ischemic or hemorrhagic stroke, admitted to a tertiary public hospital specializing in stroke care (CEP/CONEP protocol 6.561.329). Clinical data were collected through electronic medical records between July 2024 and July 2025. Descriptive and inferential statistical analyses were performed using SPSS v.29.0 ($\alpha = 5\%$). **Results:** Among 49 patients (36 ischemic, 13 hemorrhagic), none received the full panel of 25 essential laboratory tests recommended by the Ministry of Health. While sodium (95.9%), potassium (85.7%), and creatinine/urea (81.6%) were commonly requested, critical tests such as TTPA (38.8%), cholesterol (12.2%), TSH (20.4%), and functional C-reactive protein (4.1%) were severely underutilized. Inflammatory markers, antibodies, and urinalysis were also frequently omitted. **Conclusions:** The fragmented implementation of laboratory protocols reveals alarming deficiencies in stroke care, particularly in diagnostic precision and therapeutic safety. These findings underscore the urgent need for structural reorganization, improved clinical workflows, and continuous professional education to prevent avoidable disabilities and deaths.



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Data Availability Statement: The datasets generated and/or analyzed during the current study are not publicly available due to privacy restrictions but are available from the corresponding author on reasonable request.

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