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# ADVANCES IN CARE FOR PATIENTS WITH STROKE: INTEGRATIVE REVIEW

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**Abstract:** Stroke is a medical emergency characterized by the sudden onset of neurological deficits, classified as either ischemic, caused by obstruction of blood flow, or hemorrhagic, due to the rupture of a cerebral vessel. It remains one of the leading causes of death and disability worldwide, with early diagnosis being crucial for improving patient outcomes. This study presents an integrative review of advancements in stroke care, emphasizing the importance of prompt treatment to reduce complications and enhance functional independence. The review analyzed 14 relevant studies from the last five years, sourced from databases like PubMed and Google Scholar. Key findings highlight

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the significance of rapid hospital arrival, early use of MRI to predict cognitive impairments, and clear communication regarding prognosis. The study also identified barriers in patient care flow, indicating a need for Continuing Education and improved coordination within the Emergency Care Network. Effective integration among healthcare professionals is essential to optimize care quality and rehabilitation outcomes for stroke patients.

**Keywords:** Stroke; Care; Advances.

## INTRODUCTION

Cerebrovascular Accident (CVA) is a condition that results in a sudden neurological deficit, caused by problems in the blood vessels of the central nervous system. There are two main types of stroke: Ischemic stroke, which occurs when there is a significant obstruction or decrease in blood flow in a cerebral artery, often due to a clot, leading to a lack of circulation in the affected area; and Hemorrhagic stroke, which is the spontaneous rupture of a blood vessel, causing bleeding in the brain (intracerebral hemorrhage), ventricles (intraventricular hemorrhage) and/or subarachnoid space (subarachnoid hemorrhage). It is crucial to be aware of the warning signs of a stroke, which include the sudden appearance of weakness or tingling in the face, arm or leg, especially on one side of the body; confusion or difficulties in speech and comprehension; changes in vision, which can affect one or both eyes; balance and coordination problems, as well as gait difficulties; and intense and sudden headaches, without an apparent cause (SBAVC, 2021)

Strokes can also be silent, as they have no obvious signs or symptoms, occurring when a blood vessel in the brain is blocked, leading to cell death. Approximately 25% of people over 80 years of age have at least one of these infarctions, called “silent infarctions”. This condition becomes more frequent with age and in individuals who smoke or have vascular diseases. It is estimated that for every symptomatic stroke, there are 10 silent strokes. Although they are not noticed, these infarctions are related to subtle difficulties in movement and mental processing, in addition to increasing the risk of



future strokes and dementia. These infarctions can be identified in patients through advanced brain imaging methods, such as MRI and CT scans (AMERICAN HEART ASSOCIATION, 2024)

Cerebrovascular Accident (CVA) is one of the leading causes of death and disability globally. Each year, there are about 15 million cases of stroke in the world, of which 5.5 million result in deaths and 5 million leave sequelae Permanent. In Brazil, the incidence is approximately 108 cases for every 100 thousand inhabitants (BRASIL, 2023).

A systematic review, based on primary studies published in Portuguese, English, and Spanish between 2011 and 2020, revealed that there have been several advances in hospital care after the implementation of specific protocols for stroke. However, there is still a need to improve the time it takes to identify stroke symptoms, both by people who have the first contact with the patient and by the professionals involved (LEITE, et al 2022).

According to a meta-analysis study, it was found that direct oral anticoagulants (DOACs) are related to a lower risk of stroke, systemic embolism, and major bleeding events when compared to vitamin K antagonists (VKAs) in patients with atrial fibrillation and liver cirrhosis. The risk of death from various causes was similar in both groups. These results suggest that DOACs may be an advantageous alternative to anticoagulation in this group of patients. Although, more research, including randomized controlled trials, is needed to determine which is the most appropriate DOAC and the best dosing strategies, especially in patients with advanced liver disease (SINHA, et al, 2024)

## **GOAL**

The purpose of this study is to carry out an integrative review of the advances in the care of patients with cerebrovascular accident (CVA). This review aims to verify the existing evidence in the scientific literature on this topic.



## METHODOLOGY

This is a bibliographic research of the integrative review type. This study used the following guiding question: What advances in the care of patients with stroke? In this sense, to survey the articles in the literature, a search was carried out in the following databases: PubMed, Google Scholar and Science Direct and Ministry of Health and Brazilian Stroke Society. The following descriptors were used in Portuguese and English: "stroke", "care" and "advances". The inclusion criteria for the selection of articles were: articles published in Portuguese and English; full articles that were related to the theme related to the integrative review; and articles published and indexed in these databases in the last 5 years and systematic reviews.

The exclusion criteria were articles that were more than 5 years old. Thus, 2600 articles were obtained, with the use of filters, systematic review and articles from the last 5 years dropped to 110, where of the latter 14 were used to compose the result, as they came closer to the proposed theme.

## FINDINGS

YEAR	AUTHOR	AVC	TITLE
2024	Medeiros Ana et al.,	Present	Interventions that change the outcome of the acute phase of stroke
2023	Brandão Paloma, Lanzoni Gabriela, Pinto Isabela.	Present	Emergency care network: stroke care Red de atención de urgencias y emergencias: asistencia a accidentes cerebrovasculares
2021	Sharestani Shane et al.,	Present	A systematic review of next-generation point-of care stroke diagnostic technologies.
2024	Vasconcelos José et al.,	Present	Emerging Strategies in the Management of Stroke - Perspectives and Challenges.
2023	Mead Gillian et al.,	Present	A systematic review and synthesis of global stroke guidelines on behalf of the World Stroke Organization
2022	Sampaio Elieusa et al.,	Present	Factors associated with early arrival time in patients with ischemic stroke.
2024	Wilhelms Diene et al.,	Present	Integrated approach to the management of ischemic stroke: From emergency to rehabilitation.



2024	Azhari Hala	Present	Advancing stroke diagnosis and management through nuclear medicine: a systematic review of clinical trials
2019	Farias Joelsa	Present	Care for patients with stroke in a hospital care service: collective work as a strategy to confront health fragmentation.
2023	Ball Emily et al.,	Present	Predictors of post-stroke cognitive impairment using acute structural MRI neuroimaging: A systematic review and meta-analysis
2024	Santos Leticia et al.,	Present	Emergency Approach to Stroke: Rapid Diagnosis and Effective Intervention to Reduce Sequelae
2022	Leite Karina et al.,	Present	Reducing care time after implementing protocols for acute ischemic stroke: a systematic review
2024	Jiang Youli et al.,	Present	Advancing stroke patient care: a network meta-analysis of dysphagia screening efficacy and personalization
2021	Mb Roaldsen, H Lindekleiv, Eb Mathiesen	Present	Intravenous thrombolytic treatment and endovascular thrombectomy for ischaemic wake-up stroke

## DISCUSSION

In this study, we saw that stroke is one of the main causes of morbidity and mortality worldwide. We explored the importance of knowing the factors associated with the time of symptom onset and early arrival at the hospital of these ischemic stroke patients. This arrival is associated with reduced disability, increased functional independence, better post-stroke prognosis, and optimization of treatment time. (Medeiros ana et al., 2024)

This early arrival is associated with favorable clinical outcomes for the patient after stroke. Factors that favor this early arrival at the hospital were evidenced, such as living in the same city as the reference hospital, time from symptom onset to seeking the health unit, transport vehicle, and recognizing signs and symptoms of stroke. This shows a great finding of improvement to reduce patients' complication rates. (Sampaio Elieusa et al., 2022).

Early stroke MRI can be a valuable tool for healthcare professionals because it will help identify which stroke survivors are most likely to develop cognitive problems. (Ball Emily et al., 2023)



In addition, it is crucial to explore whether acute stroke patients are comfortable with receiving prognostic information. This can benefit because knowing your risk of cognitive complications can influence your decisions about treatment and rehabilitation. (Ball Emily et al., 2023)

However, the way this data is communicated and the support offered to patients in this process are extremely important. Realizing the emotional and mental needs of these patients, as well as maintaining effective communication, will be key to improving the health experience and outcomes of stroke survivors. (Ball Emily et al., 2023)

This study also highlights the fragmentation in the care services for stroke patients. The care flow is not visibly defined, and communication between professionals can be effective, but it can face barriers, varying according to the care professional. Although there are factors that facilitate care, there are also those that limit, highlighting the need for managerial interventions to improve care, promoting its standardization and ensuring good service. One of the strategies that can be implemented is Permanent Education, focusing on stroke and the proper functioning of the Urgent and Emergency Care Network. (Brandão Paloma et al., 2023).

## **CONCLUSION**

The conclusion of this study emphasizes the relevance of early identification and immediate care for patients who are victims of ischemic stroke, given that the speed of arrival at the hospital is directly related to better prognosis and reduction of complications. Factors such as the patient's location in relation to the hospital, the time of symptom recognition and the means of transport used are crucial for this early arrival. MRI also stands out as an important tool for predicting potential cognitive problems in survivors. In addition, effective communication of prognostic and emotional support information to patients is critical to successful rehabilitation. The study also highlights the need to improve the integration of care services, overcoming barriers in communication between professionals and promoting more standardized and efficient care. Implementing strategies such as Permanent Education can be an



improved approach to improve the Urgent and Emergency Care Network, benefiting the quality of care.

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