

Stroke care in the emergency department: The nurse's role.

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Introduction

A stroke is a medical emergency that occurs when there is a sudden disruption in blood flow to the brain, resulting in the death of brain cells. Time is of the essence when it comes to treating stroke, as the quicker medical intervention occurs, the better the chances of minimizing brain damage and maximizing recovery. In the fast-paced environment of the Emergency Department (ED), it is the dedicated and skilled nurses who often serve as the first point of contact for stroke patients, and their role is absolutely pivotal in providing timely and effective care. This article explores the critical role that emergency department nurses play in stroke care, from initial assessment to ongoing treatment and rehabilitation.

The importance of rapid assessment

When a patient presents at the emergency department with symptoms suggestive of a stroke, time is of the essence. Symptoms may include sudden numbness or weakness in the face, arm, or leg, especially on one side of the body, confusion, trouble speaking, difficulty understanding speech, vision problems, dizziness, and loss of balance or coordination. Emergency department nurses are often the first healthcare professionals to encounter these patients. Their ability to rapidly and accurately assess the situation is crucial. A thorough assessment includes gathering a detailed medical history, evaluating the patient's vital signs, and performing a neurological examination. The nurse's assessment skills are critical in determining the type of stroke the patient is experiencing, whether it is ischemic (caused by a blocked blood vessel) or hemorrhagic (caused by a ruptured blood vessel). The use of stroke scales, such as the National Institutes of Health Stroke Scale (NIHSS), helps emergency nurses quantify the severity of stroke symptoms. This objective measurement aids in the rapid identification of stroke and guides treatment decisions [1].

Initiating time-sensitive interventions

Once a potential stroke patient has been identified and assessed, emergency nurses must act swiftly to initiate time-sensitive interventions. In the case of ischemic strokes, which make up the majority of stroke cases, the administration of thrombolytic therapy is a standard of care. Tissue Plasminogen Activator (tPA) is a clot-busting medication that can be administered to dissolve the blood clot causing the stroke. However, tPA must be administered within a narrow time window, typically

within 4.5 hours of symptom onset. Emergency nurses play a central role in ensuring that tPA is administered as quickly as possible. This involves verifying eligibility criteria, accurately calculating and preparing the medication, and closely monitoring the patient for any signs of improvement or deterioration during and after treatment. They must also be prepared to manage potential complications, such as bleeding, which can occur as a result of tPA administration [2].

Collaboration and communication

Effective communication and collaboration are essential in stroke care. Emergency nurses work closely with physicians, radiologists, and other healthcare professionals to expedite the diagnostic process. The diagnosis of stroke often requires imaging studies, such as Computed Tomography (CT) scans, to confirm the type and location of the stroke. Nurses coordinate the patient's transportation to the radiology department and ensure that the results are promptly communicated to the medical team. If a patient is diagnosed with a hemorrhagic stroke, which is often caused by a ruptured aneurysm or arteriovenous malformation, the nursing staff must be prepared to assist in the stabilization and surgical intervention that may be required. Hemorrhagic strokes are typically more complex to manage and often necessitate specialized care [3].

Ongoing monitoring and support

Stroke care doesn't end with the initial interventions in the emergency department. Nurses play a vital role in ongoing monitoring and support for stroke patients. After receiving acute treatment, patients may be admitted to a stroke unit or intensive care unit for further care and observation. Monitoring includes assessing vital signs, neurological status, and evaluating for potential complications such as post-stroke seizures or infection. Stroke patients may also require support in activities of daily living, as stroke can result in various degrees of physical and cognitive impairment. Nurses are instrumental in providing education to patients and their families about stroke risk factors, prevention, and rehabilitation options. They help coordinate the multidisciplinary team of healthcare professionals involved in the patient's care, including physical and occupational therapists, speech-language pathologists, and social workers, to address the patient's comprehensive needs.

Emotional support and rehabilitation

Stroke patients often experience emotional distress and may

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be fearful about their future. They may require emotional support to cope with the sudden and life-altering nature of their condition. Nurses are uniquely positioned to provide this support, offering reassurance, listening to concerns, and promoting a positive outlook. Rehabilitation is a key component of stroke recovery. Nurses assist in the planning and implementation of rehabilitation programs, which can include physical therapy, speech therapy, and occupational therapy. They help patients set realistic goals and work towards regaining their independence and quality of life [4].

Continuing education and quality improvement

Stroke care is continually evolving, with new guidelines and treatments emerging regularly. To ensure that they provide the best possible care, emergency department nurses engage in ongoing education and training. They stay up-to-date on the latest evidence-based practices and participate in quality improvement initiatives to enhance the care they provide to stroke patients [5].

Conclusion

Stroke care in the emergency department is a race against time, and emergency nurses are the first responders on the frontlines of this battle. Their rapid assessment and initiation of time-sensitive interventions can make the difference between life and death for stroke patients. Furthermore, their ongoing monitoring, support, and collaboration with the healthcare team are essential in the comprehensive care of stroke

patients. Nurses provide emotional support and help patients navigate the often long and challenging road to recovery. Their commitment to staying informed and improving their practice ensures that stroke patients receive the best care possible. In the world of emergency medicine, the role of the nurse in stroke care is nothing short of heroic.

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