

NURSING CARE MANAGEMENT OF MEDICAL-SURGICAL NURSING FOR MRS. E WITH ISCHEMIC STROKE IN ROOM RA1 AT H. ADAM MALIK MEDAN NORTH SUMATRA PROVINCE, YEAR 2025

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ABSTRACT

Ischemic stroke is the most prevalent type of stroke, caused by a blockage in the cerebral blood vessels that reduces blood flow and oxygen supply to brain tissue. This condition leads to rapid neuronal death and can result in neurological impairments such as paralysis, speech difficulties, and loss of consciousness. Key risk factors include hypertension, diabetes mellitus, dyslipidemia, heart disease, smoking, and unhealthy lifestyle habits. Stroke is the second leading cause of death and a major contributor to disability worldwide. According to the World Health Organization, stroke causes approximately 6 million deaths annually, with 62% occurring in individuals under 70 years old and 16% in those aged 15–49. In Indonesia, stroke prevalence is 8.3 per 1,000 population, while in North Sumatra Province, it reaches 9.3%. At RSUP H. Adam Malik, ischemic stroke cases have steadily increased, with 295 cases in 2023, 393 cases in 2024, and 131 cases reported during the first two months of 2025. In response, this study presents a case study of medical-surgical nursing care for Mr. E, a patient with ischemic stroke admitted to the RA1 Ward at RSUP H. Adam Malik.

Keywords: Ischemic Stroke; Medical-Surgical Nursing; Neurological Impairment; Nursing Care Management; Risk Factors

Introduction

Stroke is a cerebrovascular disorder that occurs due to either a blockage or rupture of blood vessels in the brain. Unhealthy lifestyle habits, such as smoking, alcohol consumption, poor diet, and lack of regular physical activity, contribute to the risk of stroke (Hutahean & Hasibuan, 2020). The condition disrupts nerve function, leading to muscle paralysis from impaired cerebral blood flow, difficulty swallowing, loss of verbal communication, visual disturbances, altered consciousness, and, in severe cases, death (Negeri & Tuntungan, 2022). Stroke is defined by the World Health

Organization (WHO) as the rapid onset of clinical signs of focal or global cerebral dysfunction lasting more than 24 hours or resulting in death, with no apparent cause other than vascular origin. Strokes are classified into two main types based on their cause. Ischemic stroke occurs when blood flow to the brain is reduced, disrupted, or blocked, a condition also known as cerebral ischemia. Hemorrhagic stroke arises from the rupture of a blood vessel. Insufficient blood supply deprives the brain of oxygen and nutrients, causing cell death in affected areas and resulting in

loss of function in the body parts controlled by those regions (Sherly, 2025).

Stroke is a medical emergency that requires immediate intervention due to its potentially life-threatening nature (Harris et al., 2022). During a stroke, an estimated 1.9 million brain cells can be lost every minute. Stroke is the leading cause of disability and the second leading cause of death globally, according to the World Health Organization (WHO, 2022).

Stroke causes approximately 6 million deaths worldwide each year, with 62% of cases occurring in individuals under 70 and 16% in those aged 15–49. Women are slightly more affected (53%) than men (47%). Effective stroke management relies on Nursing Service Excellence in Emergency Care. Nurses play a critical role from the acute phase to rehabilitation, including rapid assessment for accurate diagnosis, routine monitoring of vital parameters, collaborative care, and management of complications. They also coordinate secondary prevention programs, provide health education, and support patients and caregivers during the transition home (Veronika, 2019). (Veronika, 2019).

Several studies conducted by lecturers of STIKes Mitra Husada Medan have emphasized the importance of comprehensive nursing management in patients with neurological disorders, particularly stroke. Sinaga, Fauzianty, and Situmorang (2023) reported that structured medical-surgical nursing care significantly improves patient monitoring and prevents complications in hospitalized stroke patients. Similarly, Situmorang, Sinaga, and Fauzianty (2022) highlighted that effective nursing interventions focusing on mobility support, neurological observation,

and swallowing management contribute to better functional outcomes in stroke patients. Furthermore, Fauzianty, Sinaga, and Napitupulu (2022) found that appropriate nursing care planning and implementation play a vital role in improving physical mobility and reducing dependency in patients with chronic neurological conditions, including ischemic stroke.

Research Methods

This study was conducted in RA1 Room at H. Adam Malik General Hospital, with nursing care for Mrs. E provided from May 4 to May 6, 2025. The research problem is formulated as: "How is the Medical-Surgical Nursing Care Managed for Mrs. E with Ischemic Stroke in RA1 Room at H. Adam Malik General Hospital in 2025?"

A qualitative descriptive case study method was used, which involves investigating social phenomena and human problems through direct data collection. The focus of this research is on the medical-surgical nursing management of Mrs. E with ischemic stroke. The study follows a systematic nursing care process, including assessment, formulation of nursing diagnoses, planning and implementation of nursing interventions, and evaluation of care outcomes.

Results

The client, Mrs. E, is a 77-year-old Javanese Muslim woman residing in Simalingkar A. She is married, has a high school education, and works as a housewife. Her medical record number is 00964444. She was admitted to the hospital on May 3, 2025, with a nursing assessment conducted on May 4, 2025.

Information was obtained from both the client and her family. The emergency contact is Mrs. U, a high school-educated housewife living in the same area.

During hospitalization, the patient reported waking at night with a severe, stabbing headache, accompanied by numbness and complete loss of movement in the left extremity, including impaired hand function when attempting to grasp objects. The client's primary complaints include difficulty moving the left extremities, limited overall body mobility, dizziness, and swallowing difficulties (Ho and Powers, 2025). These symptoms have persisted intermittently for two days and worsen with physical activity, showing no improvement before hospital admission. Based on the medical diagnosis, the client is experiencing left-sided hemiparesis of the seventh cranial nerve (Nervus VII) caused by a hyperacute ischemic stroke (non-hemorrhagic).

The results of medical-surgical nursing care for Mrs. E, a 77-year-old patient with ischemic stroke admitted to RA1 Room at RSUP H. Adam Malik from May 4 to May 6, 2025, are presented by comparing theoretical concepts with the actual nursing care provided, covering assessment, diagnosis, interventions, implementation, and evaluation.

A descriptive method was used to identify and evaluate the nursing care. Mrs. E was admitted on May 3, 2025, with a medical diagnosis of left hemiparesis due to hyperacute ischemic stroke. During assessment, she was observed lying weakly with limited movement in the left extremities. An RL NaCl 0.9% infusion was attached to her left hand. She was

conscious (*compos mentis*) with a GCS score of 15 and connected to monitoring devices. Vital signs were as follows: blood pressure 140/80 mmHg, pulse 77 beats/min, respiratory rate 18 breaths/min, and temperature 36.6°C.

According to theory, ischemic stroke occurs due to a blockage or obstruction in the cerebral blood vessels, often caused by a thrombus. This obstruction reduces or completely stops blood flow to the brain, resulting in insufficient delivery of oxygen and glucose. Prolonged inadequate blood supply leads to brain tissue death, which can cause impaired consciousness and neurological deficits in the patient.

The nursing diagnoses for the patient are as follows:

1. **Decreased Intracranial Adaptive Capacity:** related to cerebral edema, evidenced by severe dizziness described as stabbing pain, difficulty moving the left side of the body, loss of function when attempting to hold objects, and facial asymmetry (slightly drooping mouth).
2. **Impaired Physical Mobility:** related to decreased muscle strength, evidenced by difficulty moving body parts, limited overall movement, and reliance on family assistance for mobility.
3. **Impaired Swallowing:** related to cerebrovascular disorder, evidenced by difficulty swallowing, sensation of pressure during swallowing, throat pain and burning, and the presence of a nasogastric tube (NGT).

For the first diagnosis, Decreased Intracranial Adaptive Capacity, nursing

interventions included monitoring signs of increased intracranial pressure by observing blood pressure, minimizing environmental stimuli by providing a calm and quiet environment, and positioning the patient in a semi-Fowler's position.

For the second diagnosis, Impaired Physical Mobility, interventions involved engaging the patient's family to assist with mobility, supporting the patient's shoulders during turning to the right and left sides, and performing active and passive range of motion (ROM) exercises.

For the third diagnosis, Impaired Swallowing, interventions included monitoring swallowing ability by providing fluids with a spoon and following the prescribed diet, gradually training the patient to swallow, administering nutrition via nasogastric tube (NGT), and ensuring the patient was positioned comfortably during feeding.

Nursing Evaluation is the final stage of the nursing process, used to assess the patient's health progress. Evaluations were conducted daily from May 4 to May 6, 2025. The results on the third day were as follows:

1. Decreased Intracranial Adaptive Capacity: The problem remains unresolved, as the patient continues to experience decreased consciousness.
2. Impaired Physical Mobility: related to decreased muscle strength: The problem remains unresolved, with the patient still having difficulty moving the extremities and overall body movement remaining limited.
3. Impaired Swallowing: related to cerebrovascular disorder: The problem is partially resolved, as the patient has

begun swallowing orally, though only gradually.

The findings of this case study are consistent with previous research conducted by lecturers of STIKes Mitra Husada Medan. Sinaga, Fauzianty, and Situmorang (2023) demonstrated that systematic medical-surgical nursing care, including neurological assessment, mobility assistance, and complication prevention, is essential in managing ischemic stroke patients. In addition, Situmorang, Sinaga, and Fauzianty (2022) emphasized that nursing interventions aimed at improving physical mobility and swallowing ability are crucial components of stroke nursing management. These findings are further supported by Fauzianty, Sinaga, and Napitupulu (2022), who reported that well-planned nursing interventions significantly enhance patient independence and recovery outcomes.

Conclusion

After implementing medical-surgical nursing care for Mrs. E with ischemic stroke in RA1 Room at H. Adam Malik General Hospital using the nursing process—Assessment, Nursing Diagnosis, Nursing Care Interventions, Implementation, and Evaluation—the following conclusions were drawn after three days:

1. Decreased Intracranial Adaptive Capacity related to cerebral edema, evidenced by severe dizziness described as stabbing pain, difficulty moving the left side of the body, loss of function when attempting to hold objects, and

- facial asymmetry (drooping mouth). This problem remains unresolved.
2. Impaired Physical Mobility: related to decreased muscle strength, evidenced by difficulty moving body parts, limited movements, and reliance on family assistance. This problem is partially resolved.
 3. Impaired Swallowing: related to cerebrovascular disorder, evidenced by difficulty swallowing, sensation of pressure, throat pain and burning during swallowing, and use of a nasogastric tube (NGT). This problem is partially resolved.

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