

## MIDWIFERY CARE MANAGEMENT FOR MR. Z WITH HYPERTENSION IN STROKE UNIT

<sup>1</sup>Jihan Muthia, <sup>2</sup>Juwita Rantika, <sup>3</sup>Retno Wahyuni, <sup>4</sup>Desy Arrizal

<sup>1,2,3</sup>Sekolah Tinggi Ilmu Kesehatan Mitra Husada Medan

<sup>4</sup>RSU Haji Medan

Email: [2419201717@mitrahusada.ac.id](mailto:2419201717@mitrahusada.ac.id) , [2419201028@mitrahusada.ac.id](mailto:2419201028@mitrahusada.ac.id)  
[,retnowahyuni@mitrahusada.ac.id](mailto:retnowahyuni@mitrahusada.ac.id) , [desyarrizal@mitrahusada.ac.id](mailto:desyarrizal@mitrahusada.ac.id)

### ABSTRACT

**Background:** Hypertension is a chronic disease and a major risk factor for stroke and other cardiovascular complications. It is often referred to as the “silent killer” because it can develop without noticeable symptoms and may lead to severe health consequences if not properly managed. **Objectives:** This study aimed to evaluate the implementation of midwifery care management for a patient with hypertension treated in the Stroke Care Unit (SCU) of Haji General Hospital Medan in 2025. **Methods:** This study employed a case study design using a midwifery care management approach. Data were collected through patient assessment, physical examination, observation, medical records, and collaboration with the healthcare team. The subject of the study was Mr. Z, a 57-year-old patient diagnosed with hypertension and stroke. **Results:** The patient presented with decreased consciousness, headache, vomiting, right-sided limb weakness, and a blood pressure of 193/135 mmHg. A CT scan revealed lacunar infarction. Comprehensive care included monitoring vital signs, assessing neurological status, collaborating with physicians, administering prescribed therapy, and providing health education. The interventions contributed to the stabilization of the patient’s condition and helped prevent further complications. **Conclusions:** Comprehensive and collaborative midwifery care management plays an important role in controlling hypertension, supporting patient recovery, and preventing complications in patients treated in intensive care settings.

**Keywords:** Hypertension; Midwifery; Management; Stroke

## INTRODUCTION

Hypertension is a major health problem among older adults, characterized by systolic blood pressure of  $\geq 140$  mmHg and diastolic blood pressure of  $\geq 90$  mmHg. This condition is often asymptomatic but can lead to serious complications. Factors contributing to the prevalence of hypertension among older adults include knowledge, attitudes, and dietary habits related to daily lifestyle. (Afriani, B., Camelia, R., & Astriana, W. 2023). Hypertension is responsible for approximately 9.4 million deaths worldwide each year, with nearly 1.5 million of these deaths occurring in Southeast Asia. The number of people with hypertension is projected to increase by 80%, rising from 639 million cases in 2000 to approximately 1.15 billion by 2025. The prevalence of hypertension among adults ranges from 6–15%, and about half of those affected are unaware that they have hypertension. (WHO, Global Report on Hypertension: The Race Against a Silent Killer, 2023). Hypertension is a condition characterized by persistently elevated blood pressure and is classified as a chronic health problem commonly found across various age groups. This condition is one of the primary risk factors for complications in the circulatory system, such as heart and blood vessel disorders. It is estimated that the number of people with hypertension worldwide, particularly among individuals of working age through older adults, has reached more than one billion. If not adequately managed, hypertension can progress to serious conditions such as stroke, coronary heart disease, and kidney dysfunction. (Huang et al. 2025). Hypertension is not caused by a single factor but is influenced by a combination of various biological and environmental factors. Genetic factors, stress, lack of physical activity, and an unbalanced diet contribute to elevated blood pressure. A diet high in sodium and fat and low in fiber also affects the balance of microorganisms living in the gastrointestinal tract, known as the gut microbiome. (Huang et al. 2025), hypertension remains one of the most serious global health issues. The WHO reports that in 2024, approximately 1.4 billion adults aged 30–79 worldwide suffered from hypertension. However, only a small proportion of those affected have their blood pressure effectively controlled—roughly one in five people. This indicates a significant gap in the diagnosis, treatment, and management of hypertension globally. (World Health Organization (WHO), 2025). Based on data from reports on patients with hypertension recorded at RSU Haji Medan, specifically in the Stroke Care Unit (SCU), the number of patients fluctuated each month throughout 2025. In January, there were 40 patients; in February, 39 patients; and in March, also 39 patients. In April, the number of patients decreased to 36. Subsequently, in May and June, there was an increase to 42 patients each month. The number of patients rose again in July to 47 and reached its peak in August with 54 patients. In September, the number of patients decreased slightly to 53; in October and November, it remained relatively stable at 52 patients each month. Meanwhile, the number of patients in December is still an estimate, at approximately 32 patients. Overall, based on data from RSU Haji Medan, the total number of hypertensive patients treated in the Stroke Care Unit (SCU) during 2025 reached approximately 520 patients per year. These data indicate that hypertension is a major risk factor contributing to stroke incidence; therefore, optimal blood pressure control, early detection, and intensive, ongoing care in the SCU are necessary to reduce the rate of complications and improve patients' quality of life.

## METHODS

This case report employs a case study design with a qualitative descriptive approach. A case study was chosen because it aims to provide an in-depth description of the application of midwifery care management for a single patient with hypertension accompanied by neurological complications. The subject of this case report is Mr. Z, a 57-year-old man who was admitted to the Stroke Care Unit (SCU) at Haji Medan General Hospital in 2025. The subject was selected through purposive sampling based on a diagnosis of hypertension with clinical conditions requiring intensive and collaborative midwifery care.

Data collection was conducted using several methods, including a medical history interview to obtain subjective data from the patient and family, a physical examination to obtain objective data—including vital signs and neurological status—as well as supportive tests such as a CT scan, laboratory tests, and an ECG. Additionally, direct observation was conducted throughout the care process, along with a review of the patient's medical records.

## RESULTS

Based on the assessment of Mr. Z, aged 57 years, conducted in the Stroke Care Unit (SCU) at RSU Haji Medan in 2025, the patient presented with decreased consciousness, headache, nausea and vomiting, and weakness of the right side of the body. Physical examination revealed a blood pressure of **193/135 mmHg**, indicating severe hypertension. A CT scan demonstrated lacunar infarcts in the right caudate and lentiform nuclei as well as the left external capsule, confirming the diagnosis of ischemic stroke. During the assessment, the patient was identified as having impaired physical mobility, headache, right-sided muscle weakness, and a high risk of further neurological complications. Nursing management included continuous monitoring of vital signs and neurological status, intravenous fluid therapy, administration of antihypertensive and supportive medications according to the physician's prescription, patient positioning, and preparation for diagnostic examinations. Pharmacological therapy consisted of amlodipine, candesartan, citicoline, furosemide, ranitidine, omeprazole, and intravenous fluids. Non-pharmacological interventions included passive and active range-of-motion (ROM) exercises according to the patient's condition, semi-Fowler positioning to improve comfort and cerebral perfusion, nutritional and fluid management, and education for both the patient and family regarding medication adherence, blood pressure control, prevention of recurrent stroke, and patient safety measures such as the use of bed rails. Evaluation showed a positive clinical response. The patient's blood pressure decreased from **193/135 mmHg to 153/79 mmHg**. The patient regained full consciousness, became alert and oriented, and showed no evidence of neurological deterioration. Complaints of headache, nausea, and vomiting gradually resolved. Although muscle strength in the right upper and lower extremities remained weak, no further decline was observed throughout the hospitalization.

## DISCUSSION

The findings of this case support the established understanding that hypertension is one of the major risk factors for ischemic stroke. Long-term uncontrolled hypertension contributes to endothelial damage, increased vascular resistance, and atherosclerotic changes that impair

cerebral blood flow, ultimately resulting in cerebral infarction. The patient's clinical manifestations—including headache, nausea, vomiting, impaired consciousness, and unilateral weakness—are consistent with the typical presentation of ischemic stroke described in current literature. The identified nursing problems, including impaired physical mobility and the risk of further neurological complications, are also consistent with evidence-based nursing theories, which indicate that patients with severe hypertension and stroke commonly experience impaired tissue perfusion, reduced functional capacity, and increased risk of complications affecting the brain and other target organs. The management provided in this case followed current standards of stroke and hypertension care. Regular monitoring of vital signs and neurological status enabled early detection of changes in the patient's condition. The administration of antihypertensive medications, neuroprotective therapy, diuretics, gastrointestinal protection, and intravenous fluids represented an interdisciplinary approach to stabilize blood pressure and prevent secondary complications. Previous studies have demonstrated that effective blood pressure control significantly reduces the risk of recurrent stroke, improves cardiovascular outcomes, and enhances overall quality of life. Non-pharmacological interventions also contributed to patient recovery. Passive and active ROM exercises helped maintain joint mobility and reduce the risk of contractures associated with prolonged immobility. The semi-Fowler position promoted patient comfort and may improve cerebral circulation. Adequate nutritional and fluid management further supported metabolic stability and recovery. Patient and family education formed an essential component of comprehensive care. Education regarding medication adherence, lifestyle modification, blood pressure monitoring, recurrent stroke prevention, and safety precautions increased family involvement in the recovery process. Family support is recognized as an important factor influencing patient adherence to treatment and long-term rehabilitation outcomes. The evaluation findings demonstrated that the implemented interventions were effective in stabilizing the patient's condition. Blood pressure was significantly reduced, neurological status improved, and no additional complications developed during the observation period. Although right-sided muscle weakness persisted, its stability suggests that early intervention successfully prevented further neurological deterioration. Overall, this case demonstrates that comprehensive midwifery/nursing care management based on current clinical guidelines, evidence-based practice, and multidisciplinary collaboration can effectively improve clinical outcomes in patients with severe hypertension complicated by ischemic stroke. No substantial discrepancies were observed between theoretical recommendations and the clinical management implemented in this case.

## CONCLUSIONS

The assessment findings revealed that Mr. Z, aged 57, presented to the SCU with chief complaints of decreased consciousness, severe headache, nausea and vomiting, and weakness in his right limbs. Vital sign assessment revealed extremely high blood pressure, at 193/135 mmHg, indicating severe hypertension. The CT scan results showed a lacunar infarction, indicating a cerebrovascular complication resulting from uncontrolled hypertension. The midwifery care provided focused on close monitoring of vital signs—particularly blood pressure—observation of neurological status, prevention of further complications, and collaboration with the medical team in administering pharmacological therapy. Additionally, efforts were made to meet the patient's basic needs, ensure a comfortable position, and educate



the family about the patient's condition and the importance of blood pressure control. This case discussion demonstrates the alignment between theory and the patient's clinical condition. Theoretically, long-standing, uncontrolled hypertension can cause damage to cerebral blood vessels, thereby triggering an ischemic stroke. This condition aligns with the clinical findings in Mr. Z, who presented with neurological deficits accompanied by high blood pressure. The implementation of midwifery care management is carried out systematically through the stages of assessment, diagnosis, planning, implementation, and evaluation. No gaps were found between theory and practice in the field. The patient's response to the care provided showed a gradual improvement in her condition, marked by a decline in blood pressure, a more stable general condition, and no worsening of her neurological status. Educating patients and their families is a crucial part of midwifery care, particularly in improving adherence to treatment and preventing complications such as recurrent strokes. This aligns with evidence-based practice, which emphasizes the importance of blood pressure control and family support in the successful management of hypertension. A lack of knowledge can lead older adults to misunderstand the importance of limiting salt intake and adjusting their diet, resulting in a less favorable attitude toward a hypertension-management diet. These findings align with the theory that knowledge forms the basis for health attitudes and behaviors. With increased knowledge, older adults are expected to be more compliant with a hypertension diet to prevent complications. (Oktaria, M., Hardono, H., Wijayanto, W. P., & Amiruddin, I. 2023)

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## AUTHOR CONTRIBUTIONS

JM (Jihan Muthia): conceptualization, investigation, data curation, methodology, writing original draft;

JR (Juwita Rantika): investigation, data curation, methodology, formal analysis, writing original draft;

RW (Retno Wahyuni): supervision, methodology, validation, writing review and editing.

DA (Desy Arizzal): resources, validation, formal analysis, visualization;

## REFERENCES

- Bakris, G.L. & Kaur, S. A systematic review of hypertension and stress: The silent killers. *Am. J. Hypertens.* **35**, 150–154 (2021). <https://doi.org/10.1093/ajh/hpab002>
- Carey, R.M., Muntner, P., Bosworth, H.B. & Whelton, P.K. Prevention and control of hypertension. *J. Am. Coll. Cardiol.* **72**, 1278–1293 (2018). <https://doi.org/10.1016/j.jacc.2018.07.008>
- Diaz, K.M. & Shimbo, D. Physical activity and the prevention of hypertension. *Curr. Hypertens. Rep.* **15**, 659–668 (2013). <https://doi.org/10.1007/s11906-013-0386-8>
- Fan, J.F. *et al.* A systematic review and meta-analysis of cold exposure and cardiovascular disease outcomes. *Front. Cardiovasc. Med.* **10**, 1084611 (2023). <https://doi.org/10.3389/fcvm.2023.1084611>
- Gabb, G. What is hypertension? *Aust. Prescr.* **43**, 108–109 (2020). <https://doi.org/10.18773/austprescr.2020.025>
- Hamrahian, S.M., Manolis, O.H. & Filipp, T. A critical review of medication adherence in hypertension: Barriers and facilitators clinicians should consider. *Patient Prefer. Adherence* **16**, 2749–2757 (2022). <https://doi.org/10.2147/PPA.S386784>
- Kokubo, Y. Prevention of hypertension and cardiovascular diseases: A comparison of lifestyle factors in westerners and east Asians. *Hypertension* **63**, 655–660 (2014). <https://doi.org/10.1161/HYPERTENSIONAHA.113.00543>
- Afriani, B., Camelia, R. & Astriana, W. Analisis kejadian hipertensi pada lansia. *J. Gawat Darurat* **5**, 1–8 (2023).
- Syarli, S. & Arini, L. Faktor penyebab hipertensi pada lansia: Literatur review. *Ahmar Metastasis Health Journal* (2021).

- Oktaria, M., Hardono, H., Wijayanto, W.P. & Amiruddin, I. Hubungan pengetahuan dengan sikap diet hipertensi pada lansia. *J. Ilmu Medis Indones.* 2, 69–75 (2023). <https://doi.org/10.35912/jimi.v2i2.1512>
- Rizqiya M, Ningrum DNA. Trend kejadian hipertensi dan pola distribusi kejadian hipertensi dengan penyakit penyerta secara epidemiologi di Indonesia. *Indonesian Journal of Public Health and Nutrition.* 2023;3(3). doi:10.15294/ijphn.v3i3.62153.
- Journals of Universitas Negeri Semarang Ulfa EF, Darundiati YH, Setiani O, Dewanti NAY. Faktor-faktor yang berhubungan dengan kejadian hipertensi pada petani padi di Desa Prajegan Kecamatan Sukorejo Kabupaten Ponorogo. *Jurnal Kesehatan Masyarakat.* 2024;12(1):84–90. doi:10.14710/jkm.v12i1.39571.
- E-Journal UNDIP Sifai IA, Wulandari R. Prevalensi dan faktor risiko hipertensi pada orang dewasa di Semarang Barat. *Media Kesehatan Masyarakat Indonesia.* 2024;23(4):344–350. doi:10.14710/mkmi.23.4.344-350.
- Undip E-Journal Sinaga H, Tanjung HY, Ningrum MS, Anggesti I, Zahroh DAS. Gambaran kejadian hipertensi dan cara pengobatannya pada masyarakat pesisir Pantai Serambi Deli Serdang Sumatra Utara. *PubHealth Jurnal Kesehatan Masyarakat.* 2023;1(4):212–216. doi:10.56211/pubhealth.v1i4.242.
- Jurnal Ilmu Bersama Minarti M, Wardana A, Hartati Y, Minata F. Determinasi karakteristik responden dan lingkungan sosial kejadian hipertensi di UPT Puskesmas Teluk Betung Kabupaten Banyuasin Tahun 2023. *PREPOTIF: Jurnal Kesehatan Masyarakat.* 2024;8(1):254–265. doi:10.31004/prepotif.v8i1.25865.