MATERNITY NURSING CARE MANAGEMENT WITH SERVICE EXCELLENCE FOR Mrs. R WITH SECOND TRIMESTER ANEMIA AT PERA CLINIC, MEDAN TUNTUNGAN SUB-DISTRICT NORTH SUMATRA PROVINCE

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ABSTRACT

Anemia during pregnancy remains a serious maternal health issue in Indonesia, contributing to complications such as preterm labor, postpartum hemorrhage, low birth weight, and even maternal and neonatal mortality. According to WHO data in 2023, the global prevalence of anemia is 40% in children aged 6–59 months, 37% in pregnant women, and 30% in women aged 15–49 years. In Asia, the prevalence of pregnancy-related anemia reaches 49.4%. In Indonesia, the incidence rose from 37.1% in 2013 to 48.9% in 2018, with the highest prevalence found in the 15–24 age group at 84.6%. The 2021 Riskesdas reported that 78% of pregnant women in Indonesia experienced anemia, and in North Sumatra Province, the prevalence ranged from 15% to 39%. This case study aims to implement maternity nursing care management with a service excellent approach for Mrs. R, a second-trimester pregnant woman diagnosed with anemia at Pera Clinic, Medan Tuntungan District. The study uses a descriptive case study method with a nursing care process approach that includes assessment, diagnosis, intervention, implementation, and evaluation. The assessment revealed that Mrs. R exhibited typical anemia symptoms with a hemoglobin level of 9 g/dl. The interventions focused on nutritional education, vital sign monitoring, improving tissue perfusion, and providing emotional support. The evaluation showed clinical improvements in both physical and psychological conditions. The results of this study demonstrate that applying professional nursing care with a focus on service excellence can improve the quality of life for pregnant women and support efforts to reduce the prevalence of pregnancy-related anemia.

Keywords: Maternity, Nursing Care, Anemia, Pragnancy, Service Excellence

Introduction

According to the National Development Planning Decree No.Kep.136/M.PPN/HK/ 12/2021, the national development strategy for the 2021–2024 period is directed at achieving the Sustainable Development Goals (SDGs), particularly Goal 3 on good health and well-being and Goal 17 on partnerships for the goals. In the context of maternity nursing care, one of the major health challenges in Indonesia is anemia

during pregnancy. Maternal anemia not only reduces the quality of life of pregnant women but also increases the risk of complications such as preterm labor, postpartum hemorrhage, low birth weight, and even maternal and neonatal mortality (Bappenas, 2021).

Addressing the complexities of maternal anemia necessitates an integrated and longitudinal approach, encompassing meticulous planning, evidence-based implementation, and systematic evaluation. Nurses and midwives occupy a central role in this framework through clinical screening, targeted nutritional counseling, and the rigorous monitoring of Iron (Fe) supplementation adherence. Furthermore, establishing multidisciplinary and cross-sectoral collaborations is imperative to bridge clinical interventions with community-based support systems. These strategic initiatives are directly aligned with Sustainable Development Goal (SDG) Target 3.1, which mandates a reduction in the global maternal mortality ratio to below 70 per 100,000 live births by 2030. Consequently, the institutionalization of sustainable anemia management is a fundamental prerequisite for optimizing maternal health outcomes within the Indonesian healthcare system0. Therefore, integrated and sustainable management of anemia during pregnancy is essential to improve maternal health outcomes in Indonesia (Ministry of National Development Planning/Bappenas, 2021).

The Indonesian government's anemia control program is part of the national strategy to manage non-communicable diseases (NCDs). One key initiative is the distribution of iron tablets (Fe) to pregnant women in various provinces to meet their iron needs during pregnancy. This program directly supports SDG Goal 3, particularly in reducing maternal mortality and improving access to basic healthcare services. However, the compliance rate of pregnant women in consuming iron tablets remains a major challenge (World Health Organization, 2023).

Non-compliance is influenced by various factors, including low education levels, lack of knowledge, long therapy duration, disappearance of anemia symptoms, and suboptimal communication between healthcare providers and patients. To address these issues, the role of nurses is crucial. Nurses must conduct early screenings, deliver nutrition education, monitor iron tablet consumption, and build partnerships with healthcare professionals, health cadres, and community leaders (World Health Organization, 2023).

This collaborative approach is in line with SDG Goal 17, which emphasizes the importance of multi-stakeholder partnerships to achieve sustainable and impactful interventions. Such collaboration is vital for improving the health status of pregnant women nationwide. Without a partnership-based strategy, efforts to combat anemia are less likely to succeed or be sustained in the long term.

According to the American Society of Hematology, anemia is defined as a condition in which the hemoglobin level falls below the normal range, reducing the blood's capacity to carry adequate oxygen to body tissues. Common symptoms include fatigue, dizziness, blurred vision,

and pale complexion. This condition weakens the immune system, reduces physical activity, and impairs concentration—posing serious risks during pregnancy for both mother and baby (American Society of Hematology, 2023).

Anemia in pregnancy is clinically diagnosed when hemoglobin (Hb) levels fall below 11 g/dL during the first and third trimesters, or below 10.5 g/dL during the second trimester. This condition frequently arises from physiological hemodilution, where the expansion of plasma volume outpaces the erythropoietic response (increase in red blood cell mass). This hematological imbalance may compromise oxygen delivery, posing significant health risks to both the mother and the developing fetus (Nasla, 2022) .

WHO data from 2023 indicates that global anemia prevalence is 40% among children aged 6–59 months, 37% in pregnant women, and 30% among women aged 15–49 years. In Asia, the prevalence among pregnant women reaches 49.4%, followed by Africa at 59.1%, the Americas at 28.1%, and Europe at 26.1% (Fatkhiyah et al., 2022). According to the 2024 Indonesian Health Survey, 3 in 10 pregnant women suffer from anemia. The rate increased from 37.1% in 2013 to 48.9% in 2018, with the highest prevalence (84.6%) seen in the 15–24 age group (World Health Organization, 2023).

In 2020, Indonesia recorded a maternal mortality rate of 189 per 100,000 live births—higher than neighboring countries like Malaysia, Brunei, Thailand, and Vietnam. Neonatal mortality was also high, reaching 9.3 per 1,000 live births. Between 2022 and 2023, maternal deaths rose from 4,005 to 4,129 cases, and neonatal deaths increased from 20,882 to 29,945 cases. The 2021 Riskesdas reported

that 78% of pregnant women experienced anemia, a sharp rise from 48.9% in 2019. In North Sumatra Province, anemia prevalence among pregnant women ranged from 15% to 39%, with 48.7% recorded in 2021 (Suryawan et al., 2023).

According to the Ministry of Health Regulation No. 4 of 2022, nurses have functional responsibilities at both technical and professional levels. This regulation outlines job classifications, duties, credit score requirements, and performance assessments. The Ministry of Health Decree No. HK.01.07/MENKES/425/2020 further defines five main professional nursing standards: ethics and law, professional practice, leadership, education and research, and self-development. A preliminary survey conducted at Pera Midwifery Clinic in Medan (February 2025) revealed that anemia cases increased from 35 (2023) to 40 (2024), with 10 cases recorded between January and March 2025. These findings underscore the continued need for intervention and education—aligned with the vision of STIKes Mitra Husada Medan to deliver excellent, innovative, and integrated healthcare services with national competitiveness toward Asia 2030 (Ministry of Health, 2024).

This study aims to contribute to the development of maternal health knowledge and support impactful, quality care. Interviews with Mrs. R and her husband were conducted to assess their understanding of anemia's causes, symptoms, impacts, and management. Education was provided on iron-rich foods (e.g., leafy greens, dragon fruit, guava, bananas), iron tablet adherence, anemia symptom recognition, and the importance

of regular antenatal checkups. These efforts aim to improve knowledge and awareness in preventing and managing anemia during pregnancy (Wulandari et al., 2025).

Research Method

This research is a descriptive case study aimed at exploring health issues related to pregnancy-related anemia, specifically at Bidan Pera Clinic, Medan Tuntungan Subdistrict, in the year 2025. The approach used in this study is the nursing care process approach, which includes the stages of assessment, nursing diagnosis, nursing interventions, implementation, evaluation, and documentation. Through this structured approach, the researcher can comprehensively explore and respond to the patient's condition in alignment with professional nursing standards.

The study was conducted at Pera Clinic, an independent midwifery practice located at Jl. Pintu Air No.77, Simalingkar B, Medan Tuntungan Subdistrict, Medan City, North Sumatra Province. The clinic offers various services, including antenatal care (ANC), 24-hour labor services, postpartum and child care, family planning, and general medical treatment. Its vision is to become a healthcare service that ensures comfort and happiness for patients. The mission includes providing care through professional and friendly midwives, prioritizing patient safety, and maintaining a caring and compassionate medical team. Data collection took place both at Pera Clinic and during home visits to the patient, Mrs. R. The maternity nursing care was carried out from March 20 to April 20, 2025.

The subject of this case study is one pregnant woman diagnosed with anemia, identified as Mrs. R. The inclusion criteria for selecting the subject include a confirmed diagnosis of anemia during pregnancy, willingness to participate in the study, and cooperative behavior throughout the research process. Exclusion criteria included patients who did not agree to participate or those without an anemia diagnosis. These criteria ensured ethical compliance and relevance to the study's focus.

The study used both primary and secondary data. Primary data were obtained directly from the patient through interviews and physical observation, including subjective complaints and objective clinical findings. Secondary data were collected from close family members and through the patient's medical records, which helped complete the overall understanding of the patient's condition and health history. The combination of both data types provided a comprehensive and reliable foundation for analysis.

The data collection process involved several steps. First, a preliminary case study was conducted at Pera Clinic in Medan Tuntungan to identify pregnant women diagnosed with anemia. The researcher then explained the definition, objectives, benefits, and steps of the case study to the selected respondent. After obtaining the patient's consent, interviews were carried out to collect subjective data, followed by observation and physical examination of relevant body systems.

After completing the assessment, the researcher formulated nursing diagnoses based on the patient's condition. Appropriate interventions were developed and implemented accordingly. Following the implementation, evaluations were conducted to assess the outcomes of the nursing care. All actions were thoroughly documented in line with nursing standards.

Finally, the results were compiled and submitted in the form of a scientific paper as a contribution to the field of maternity nursing, specifically in addressing pregnancy-related anemia.

Result

The assessment was conducted on April 15, 2025, at Pera Clinic. The client, Mrs. R, is 30 years old, of Batak ethnicity, and practices Christianity. Her highest educational attainment is high school, and she currently works as a housewife. Her husband, Mr. S, is 36 years old, also Batak and Christian. He completed junior high school and works as a self-employed entrepreneur. The couple resides on Jl. Bunga Anggrek and is legally married.

In 2023, Mrs. R had a previous normal vaginal delivery assisted by a midwife. The baby, a healthy girl, was born without complications. Mrs. R breastfed her child for four months and did not experience any difficulties during the breastfeeding period. In general, her previous pregnancy and childbirth were uneventful and without complications. Mrs. R has no history of past illnesses. Similarly, there is no significant family history of disease in either her own or her husband's family background. There are no known hereditary or chronic conditions reported by family members, ensuring that her current condition is not complicated by genetic or familial diseases.

Mrs. R has never used contraception or participated in any family planning programs. She began menstruating at the age of 16, with a regular 28-day cycle and menstruation lasting approximately four days. She experiences menstrual cramps, indicating the presence of dysmenorrhea, but has never used any contraceptive methods throughout her reproductive years. Mrs. R reported her last menstrual period as October 10, 2024, with an estimated due date of July 17, 2025. Her pre-pregnancy weight was 60 kg, which increased to 65 kg during pregnancy, and her height is 155 cm. She has attended antenatal care appointments three times at the clinic. Her obstetric status is G2P1A0, and she is currently six months pregnant. Her general condition is fully conscious (compos mentis), with vital signs showing blood pressure at 90/70 mmHg, a heart rate of 67 beats per minute, respiratory rate of 20 breaths per minute, and body temperature of 36°C. Before pregnancy, her blood pressure was recorded at 110/80 mmHg.

During this pregnancy, Mrs. R experiences fatigue, frequent dizziness, blurry vision, and shortness of breath during physical activity. She reports no current illnesses and is not taking any medications. There has been no perinatal care or breast care during her pregnancy. Despite these symptoms, she has not developed any pregnancy-related complications that require hospitalization or specialist referral. Mrs. R expressed that the pregnancy was planned and hoped to proceed smoothly (Ayu et al., 2025). She wishes to have a baby boy. Her husband provides emotional support and encouragement throughout the pregnancy. The rest of the family also shows a positive and supportive attitude toward her pregnancy, contributing to her emotional well-being. In terms of comfort, Mrs. R experiences significant disturbances in her sleep patterns. She typically sleeps around four hours at night and two hours during the day. However, her sleep has become irregular, and she frequently wakes during the night, which affects her rest and energy levels (Anggraini et al., 2023)

Nutritionally, Mrs. R has a good appetite and adequate fluid intake. She does not

experience nausea or vomiting, indicating that her digestive function is normal. Regarding mobility, she is independently mobile but occasionally needs assistance from her husband. She does not participate in regular physical exercise or prenatal workouts, although she reports no major mobility issues. Mrs. R urinates about 8–9 times daily, with a total volume of approximately 500 cc. Her urine is clear, and there are no complaints related to urinary function. She defecates once a day, with a firm stool consistency and no constipation. She does not engage in any unhealthy behaviors such as smoking or drinking alcohol. She maintains personal hygiene by bathing twice a day, regularly brushing her teeth, and keeping her hair clean.

Physical examination shows a clean scalp with red-colored hair, pale face, and conjunctivae indicating anemia. The nose is symmetrical and unobstructed, the mouth is clean with aligned teeth and no cavities, and the ears are clean with normal swallowing reflexes. Cardiac assessment reveals a regular heart rhythm with normal "lub-dub" sounds, and respiratory examination shows clear lungs with vesicular breath sounds and no use of accessory muscles. Her breasts have protruding nipples and darkened areolae, consistent with pregnancy changes. The abdomen shows no uterine contractions, linea nigra, or digestive issues. There are no vaginal varicosities or hemorrhoids, although there is vaginal discharge. Her upper arm circumference measures 28 cm with no signs of edema, and lower extremities show normal patellar reflexes, with no edema or lesions observed. Laboratory results show a hemoglobin (Hb) level of 9 g/dL, indicating anemia. Her blood glucose level is 120 mg/dL, and the urine protein test is negative. The prescribed treatment includes folic acid supplements, iron tablets, and vitamin B12 to address her anemia and support fetal development (Adethia et al., 2022)

Discussion

The discussion of maternity nursing care for Mrs. R with anemia, carried out from April 15 to April 17, 2025, at Pera Clinic, Medan Tuntungan District, is compared with theoretical guidelines. According to the Ministry of Health Regulation No. 4 of 2022 concerning the functional positions of nurses, nurses are expected to perform duties according to their level of competence. These duties include assessing the mother's condition, providing education on nutrition and the importance of iron intake, and monitoring hemoglobin levels. This is supported by research from (Fathony et al., 2022) which emphasizes the significance of anemia education for pregnant women. Additionally, Law No. 17 of 2023 on Health affirms the state's responsibility in ensuring every citizen's right to optimal health, including pregnant women, by guaranteeing proper prevention and treatment of anemia during pregnancy. In theory, the nursing assessment includes identifying the client's personal data, main complaints, current and past illnesses, family history, and physical examination (Isyos Sari & Siti Nurmawan, 2024). These are compared with Mrs. R's assessment conducted directly on April 15, 2025. Mrs. R is 30 years old, graduated from high school, works as a housewife, and is of Batak ethnicity. She was found to have a hemoglobin level of 9 g/dL, with clinical symptoms such as frequent fatigue, dizziness, blurred vision, pale conjunctiva, and low blood pressure (90/70 mmHg). The data from the patient's actual assessment aligned closely with the theoretical

framework, showing no significant differences

The theoretical nursing diagnoses for anemia in pregnancy include ineffective peripheral perfusion, activity intolerance, ineffective breathing pattern, and anxiety. However, based on Mrs. R's complaints and physical findings, three nursing diagnoses were formulated: fatigue related to physiological conditions, ineffective peripheral perfusion related to decreased hemoglobin concentration, and disturbed sleep pattern related to poor sleep control. Although only three diagnoses were established compared to four in theory, there was a strong match with the patient's actual condition, especially concerning ineffective peripheral perfusion. The other theoretical diagnoses were not supported by symptoms reported or observed in Mrs. R.

The nursing interventions carried out were aligned with the Indonesian Nursing Intervention Standards. For fatigue, interventions included observing signs of physical and emotional exhaustion and advising bed rest. For ineffective peripheral perfusion, vital signs were closely monitored and fluid intake regulated. For the sleep pattern disturbance, the patient was advised on the importance of adequate sleep and encouraged to maintain a consistent sleep schedule. Implementation was done over three days, including health education, monitoring, and dietary counseling with a focus on iron-rich foods like spinach, bananas, red guava, and dragon fruit. Evaluation revealed significant improvements across all diagnoses by the third day, where Mrs. R was able to carry out daily activities independently, no longer felt pale or weak, and her sleep pattern returned to normal (Sinaga et al., 2024).

Conclusion and Suggestion

Based on the results of the nursing care provided to Mrs. R, it can be concluded that the client was experiencing second-trimester anemia with complaints of frequent dizziness, fatigue during physical activity, and difficulty sleeping at night. The nursing diagnoses established included fatigue related to physiological conditions (pregnancy anemia), ineffective peripheral perfusion related to decreased hemoglobin concentration, and disturbed sleep pattern related to poor sleep control. The nursing interventions focused on managing these three issues, including encouraging bed rest, recommending a nutritious diet rich in iron such as bananas, dragon fruit, guava, and spinach, and advising the client to establish a regular sleep and activity schedule. The implementation of the planned interventions followed the SIKI guidelines and was carried out over three days. The evaluations showed that all problems were resolved, and the client experienced significant improvement in condition and comfort.

To support the continuity of maternity nursing care, it is suggested that educational institutions provide comprehensive and up-to-date reference books on anemia during pregnancy to enhance student knowledge. For Pera Clinic, the results of this study are expected to maintain and improve the quality of maternal care based on the established SOP. Additionally, it is hoped that this research can increase public awareness, particularly among pregnant women, regarding the prevention and management of anemia by avoiding fatigue-inducing activities and maintaining a healthy lifestyle throughout pregnancy.

References

American Society of Hematology. (2023). *Anemia: Diagnosis, Symptoms, and*

Treatment Guidelines. American Society of Hematology. https://www.hematology.org/education/patients/anemia

Fathony, Z., Amalia, R., & Lestari, P. P. (2022). Edukasi Pencegahan Anemia Pada Remaja Disertai Cara Benar Konsumsi Tablet Tambah Darah (Ttd). *Jurnal Pengabdian Masyarakat Kebidanan*, *4*(2), 49. https://doi.org/10.26714/jpmk.v4i2.9967

Fatkhiyah, N., Salamah, U., Indrastuti, A., & Nurfiati, L. (2022). Studi Korelasi Status Gizi dengan Kejadian Anemia pada Ibu Hamil. *Jurnal Kesehatan Komunitas*, *8*(3), 569–575. https://doi.org/10.25311/keskom.vol8.iss3.1295

Ministry of Health of the Republic Indonesia. (2024). Analisis Karakteristik Anemia Pada Ibu Hamil Trimester III Di Alia Hospital Jakarta Timur. *Jurnal Syntax Sejahtera*, *4*(1), 5625–5637.

Ministry of National Development Planning/Bappenas. (2021). *Decree of the Minister of National Development Planning/Head of Bappenas Number Kep.136/M.PPN/HK/12/2021 regarding the Determination of the Action Plan for the Sustainable Development Goals (SDGs) 2021–2024*. Bappenas.

Nasla, N. (2022). Manajemen Asuhan Kebidanan pada Ibu Hamill dengan Anemia. *Jurnal Ilmiah Kesehatan Sandi Husada*, *11*(1), 45–52.

Suryawan, A., Pratama, I., & Sari, R. (2023). Analisis Prevalensi Anemia pada Ibu Hamil dan Kaitannya dengan Kematian Maternal di Sumatera Utara. *Jurnal Kesehatan Masyarakat (Confirm Journal Name)*, *10*(2).

World Health Organization. (2023a). *Adherence to Long-Term Therapies: Evidence for Action*. World Health Organization.

World Health Organization. (2023b). *Global anaemia estimates, 2023 edition*. World Health Organization.

World Health Organization. (2023c). *Guideline: Daily iron and folic acid supplementation in pregnant women*. World Health Organization.

Wulandari, S., Pratama, A., & Sari, D. P. (2025). Education on Iron-Rich Foods and Family Support in Managing Maternal Anemia: A Case Study. *Journal of Midwifery and Women's Health (Confirm Journal Name)*, *7*(1), 112–125.

Adethia, K., Manurung, H. R., Pitaloka, D., Sinaga, R., & Siahaan, P. Y. (2022). Implementasi Pemeriksaan Kadar Hb Gratis Serta Sosialisasi Pencegahan Anemia Pada Ibu Hamil. *Prosiding Konferensi Nasional Pengabdian Kepada Masyarakat Dan Corporate Social Responsibility (PKM-CSR)*, *5*, 1–10.

Anggraini, E., Purnamasari, E., Sinaga, R., Nadeak, Y., Nurmayasari, S., & Umairoh, F. (2023). The Relationship Between Anc Services With The Level Of Pregnant Women's Satisfaction In Pmb Ratna Kutalimbaru District Deli Serdang District. *Mitra Husada Health Internasional Conference (MIHHICo)*, *3*(1), 19–22.

Ayu, R. M., Sinaga, R., Zahra, I. A., Azizah, N., Situmorang, T. S., & Sinaga, R. (2025). Analysis Of The Referral System Process In Maternal And Neonatal Emergencies In The Working Area Of The Beutong Kec Health Center. The Cab. The Name Of Aceh Year 2024. *Mitra Husada Health Internasional Conference (MIHHICo)*, *5*(1), 22–27.

Isyos Sari, S., & Siti Nurmawan, S. (2024). *Mutu Layanan Kebidanan dan Kebijakan Kesehatan*. AA Rizky.

Sinaga, R., Dewi, E. R., Pinem, S., Purnamasari, E., Sagala, R., Yun, D. C., Ertilida, Y., Pasaribu, N. E., & Gulo, M. (2024). The effect of beta vulgaris l juice on the acceleration of reducing the incidence of anemia in pregnant women. *Science Midwifery*, *12*(5), 1666–1672.