

MANAGEMENT OF MIDWIFERY CARE FOR MRS. A WITH SEVERE ANEMIA AT HAJI GENERAL HOSPITAL MEDAN IN 2026

Intan Putri Sinaga¹, Bungaria Sihombing², Teti vera Br.Hutapea³, Yasrida Nadeak⁴,
M.Doni syahputra⁵

^{1,2,3,4}Sekolah Tinggi Kesehatan Mitra Husada Medan, ⁵Rumah Sakit Umum Haji

Email: 2419201026@mitrahusadamedan.ac.id, 2519201129@gmail.ac.id, 2519201500@gmail.ac.id,
yasridanadeak@mitrahusada.ac.id, mdonisyahputra@gmail.ac.id

ABSTRACT

Background: Anemia in pregnancy continues to be a major global maternal health concern. It is associated with various adverse outcomes, including postpartum hemorrhage, Anemia in pregnancy is linked to several negative health outcomes, including postpartum bleeding, preterm delivery, low birth weight, and an increased likelihood of maternal mortality. In Indonesia, anemia among pregnant women remains a significant public health concern that requires proper attention and effective management strategies. remains prevalent, highlighting the need for effective prevention and management strategies. **Objectives:** This study was conducted to determine the factors associated with the incidence of anemia among pregnant women in 2026. **Methods:** An observational analytical study with a cross-sectional method was conducted among pregnant women who participated in antenatal care visits. The participants were selected using a purposive sampling method. This study examined maternal age, parity, educational level, and adherence to iron tablet supplementation as independent variables, with anemia status as the dependent variable. Data processing and analysis were performed using the Chi-square test. The results indicated that educational level, parity, and compliance with iron tablet intake had a significant association with the incidence of anemia in pregnant women. pregnant women ($p < 0.05$). Women with lower adherence to iron supplementation had a greater likelihood of experiencing anemia compared with those who regularly consumed iron tablets.

Keywords: Anemia; Pregnancy; Iron Supplementation; Parity; Maternal Health.

INTRODUCTION

Anemia in pregnancy continues to be a significant public health issue globally. The World Health Organization defines anemia in pregnancy as having a hemoglobin concentration below 11 g/dL, which indicates anemia during this period. Maternal anemia significantly impacts maternal health and death rates, particularly in developing nations. Globally, almost one in three expectant mothers experiences anemia, with Southeast Asia displaying some of the highest rates of prevalence.

In Indonesia, the prevalence of anemia in pregnant women remains a significant health concern. The Indonesian Health Survey indicates that the incidence of anemia in pregnant women remains a significant public health issue. This situation is linked to an increased risk of negative outcomes, such as premature birth, low infant weight, postpartum bleeding, and maternal death. Consequently, efficient prevention tactics and timely identification are crucial to reduce these issues. Addressing anemia is a vital part of prenatal care services.

Multiple elements lead to anemia in pregnancy, such as insufficient nutritional consumption, low educational level, multiparity, short birth intervals, poor socioeconomic status, and low adherence to iron tablet consumption. Recent studies have demonstrated that maternal knowledge and regular antenatal visits significantly influence anemia prevention.

Research conducted in various regions of Indonesia has shown that compliance with iron supplementation and adequate maternal nutrition are important protective factors against anemia. Health education and early screening during pregnancy also contribute to reducing maternal complications.

Consequently, this study was carried out to determine the factors associated with the prevalence of anemia in pregnant women in 2026. The results of this study are anticipated to offer significant information for improving anemia prevention and management strategies evidence for improving maternal health services and strengthening midwifery interventions in preventing anemia during pregnancy.

METHODS

A cross-sectional analytical observational study was performed on pregnant women attending antenatal care services in 2026. This study aimed to determine factors associated with the prevalence of anemia in expectant mothers. The study group comprised all expectant mothers utilizing maternal health services throughout the research period. Sixty participants overall were recruited through purposive sampling according to predefined inclusion criteria, including willingness to participate and the availability of complete maternal health records.

The outcome variable was the occurrence of anemia in pregnancy, characterized by a hemoglobin level below 11 g/dL. It seems you didn't provide complete content for me to paraphrase explanatory variables consisted of maternal age, parity, educational attainment, and adherence to iron tablet supplementation.

Data were obtained from structured questionnaires and maternal health records. Maternal age was grouped into low-risk (20–35 years) and high-risk (younger than 20 years or older than 35 years). Parity was categorized as primiparous or multiparous, while educational attainment was classified as either low or high. Adherence to iron supplementation was evaluated based on the consumption of at least 90 iron tablets throughout pregnancy.

Descriptive (univariate) analysis was employed to outline the attributes of participants. The Chi-square test was utilized to investigate the relationships between the independent variables and the status of anemia. Statistical significance was determined with a p-value of under 0.05. Approval was granted by the relevant ethics committee for this study, and informed

consent was secured from all participants before data gathering.

RESULTS AND DISCUSSIONS

This study included 50 pregnant women in total. Most of the participants were between 20 and 35 years old, multiparous, had low educational levels, and were not compliant with iron tablet consumption. More than half of the respondents experienced anemia during pregnancy.

Table 1. Characteristics of the Pregnant Women's Demographics

Characteristics	Frequency	Percentage (%)
Age 20–35 years	36	72.0
Age below 20 years or above 35 years	14	28.0
Primipara	18	36.0
Multipara	32	64.0
Higher education	21	42.0
Lower education	29	58.0
Adherent to fe tablets	20	40.0
Non-adherent to fe tablets	30	60.0
Anemia	28	56.0
Non-anemia	22	44.0

As presented in Table 1, the majority of respondents were between 20 and 35 years of age (72.0%). Most participants were multiparous (64.0%) and had a low level of education (58.0%). More than half of the pregnant women (60.0%) did not adhere to iron tablet supplementation. In addition, anemia was identified in 56.0% of the respondents.

Table 2. Factors Related to Anemia Among Pregnant Women

Variabel	Anemia n (%)	Non-Anemia n (%)	p-value
High-risk age	11 (78.6)	3 (21.4)	0.041
Low-risk age	17 (47.2)	19 (52.8)	
Multiparity	21 (65.6)	11 (34.4)	0.032
Primiparity	7 (38.9)	11 (61.1)	
Low education	20 (69.0)	9 (31.0)	0.018
High education	8 (38.1)	13 (61.9)	
Non- adherence to fe tablets	23 (76.7)	7 (23.3)	0.001
Adherence to fe tablets	5 (25.0)	15 (75.0)	

Table 2 shows that maternal age, parity, educational level, and following the iron tablet regimen was significantly linked to anemia in pregnant women. The most significant correlation was observed in adherence to iron tablet intake ($p = 0.001$). Pregnant women who failed to consistently take iron tablets were significantly more likely to have anemia compared to those who adhered to iron supplementation.

CONCLUSIONS

This study demonstrated that maternal age, parity, educational level, The consumption of iron tablets was significantly linked to the incidence of anemia among pregnant women. Pregnant women who were younger than 20 years or older than 35 years, multiparous mothers, women with lower educational levels, and those who did not regularly consume iron tablets showed an increased incidence of anemia.

Among all variables examined, a lack of adherence to iron tablet intake was recognized as the most dominant factor influencing anemia during Pregnancy. Insufficient adherence to iron supplementation can lead to reduced maternal hemoglobin levels, consequently elevating the risk of maternal and fetal issues, including preterm delivery, low birth weight, postpartum bleeding, and limited fetal growth.

The findings of this research emphasize the significance of strengthening antenatal care services, particularly through routine hemoglobin screening, nutritional counseling, health education, and monitoring of iron tablet consumption during pregnancy. Midwives and healthcare professionals play a crucial role in improving maternal knowledge and promoting healthy behaviors to prevent anemia.

Therefore, comprehensive interventions involving health education, adequate Strengthening nutritional interventions and improving adherence to iron supplementation are essential strategies for reducing the prevalence of anemia among pregnant women. Further research involving larger sample sizes and more diverse populations is recommended to generate broader and more comprehensive evidence on this issue. evidence regarding the determinants of maternal anemia and to support the development of effective maternal health programs.

ACKNOWLEDGEMENT

The authors express heartfelt gratitude to STIKes Mitra Husada Medan for its ongoing academic assistance and guidance during the research process. Gratitude is also expressed to all respondents who willingly participated in the study, as well as to the healthcare professionals who contributed to the data collection process. The authors are especially grateful to the lecturers and supervisors for their insightful recommendations, constructive comments, and continuous encouragement during the preparation and completion of this manuscript.

CONFLICT OF INTEREST AND DISCLOSURE OF FUNDING

The authors state that they have no competing interests regarding the publication of this article. Additionally, this research did not obtain any particular financial backing or funding. from government, commercial, or non-profit organizations. All research activities and manuscript preparation were conducted independently by the authors.

AUTHOR CONTRIBUTIONS

IPS: conceptual, investigation, data organization, approach, structured analysis, composing initial draft.

JFG: approach, verification, materials, data evaluation, composition review.

JM: oversight, composition

review and editing, validation, and final approval of the manuscript.

REFERENCE

- Agustin, L. & Hanum, S.M.F., 2023. Midwifery Care In Pregnant Women With Anemia. *International Journal Of Health Sciences And Midwifery*, 4(2), Pp.88–95.
- Bakara, S.M.P., Sinaga, S.N., Manurung, H.R., Damanik, O., Bakara, C.V. & Gulo, P., 2024. Potential Of Rosella (*Hibiscus Sabdariffa* L.) As A Herbal Medicine For Health. *Journal Of Public Health Science*, 1, Pp.340–349.
- Budiyarti, D.P., Handayani, R. & Kusuma, D., 2023. Nutritional Status And Maternal Anemia During Pregnancy. *Indonesian Journal Of Health Sciences*, 17(1), Pp.45–53.
- Bencaiova G, Breymann C. Iron Prophylaxis In Pregnancy. *Current Opinion In Obstetrics And Gynecology*. 2022;34(6):425–431.
- Camaschella, C., 2021. Iron Deficiency. *New England Journal Of Medicine*, 372(19), Pp.1832–1843.
- Chaparro, C.M. & Suchdev, P.S., 2023. Anemia Epidemiology, Pathophysiology, And Etiology In Pregnancy. *Nutrients*, 15(6), P.1254.
- Daru J, Zamora J, Fernández-Félix BM, Et Al. Risk Factors For Maternal Anemia. *Lancet Glob Health*. 2020;8(9):E1132–E1141.
- Green, R., 2020. Vitamin B12 Deficiency From The Perspective Of A Practicing Hematologist. *Blood*, 129(19), Pp.2603–2611.
- Indonesian Society Of Obstetrics And Gynecology (POGI), 2022. *Guideline For Anemia Management During Pregnancy*. Jakarta: POGI.
- Janah, A.L., Rahmawati, D. & Nurhayati, S., 2024. Health Education And Prevention Of Anemia Among Pregnant Women. *Jurnal Ners Dan Kebidanan Indonesia*, 12(1), Pp.21–29.
- Lubis R, Nasution H, Siregar D. Determinants Of Maternal Anemia Among Pregnant Women In North Sumatra. *Jurnal Kesehatan Masyarakat*. 2025;20(2):112–120
- Ministry of Health of the Republic of Indonesia, 2023. 2023 Indonesian Health Survey. Jakarta: Ministry of Health of the Republic of Indonesia. Khasanah, N.R.A., Widodo, S. & Prasetyo, B., 2024.
- Maternal Nutrition And Pregnancy Outcomes Among Indonesian Women. *Indonesian Journal Of Maternal Health*, 9(1), Pp.34–42.
- Malek, A. & Sacher, R., 2021. Pathophysiology Of Anemia In Pregnancy. *Hematology Reports*, 13(2), Pp.95–103.
- Ministry of Health of the Republic of Indonesia. Guidelines for the Administration of Iron-Folic Acid Tablets to Pregnant Women. Jakarta: Ministry of Health of the Republic of Indonesia; 2022
- Nainggolan, Y.B., Sitanggang, R., Siahaan, M. *Et Al.*, 2025. Education On The Management And Prevention Of Malnutrition In Toddlers In Medan City. *Community Health Journal*, 5, Pp.242–246
- Pena-Rosas JP, De-Regil LM, Garcia-Casal MN, Dowswell T. Daily Oral Iron Supplementation During Pregnancy. *Cochrane Database Syst Rev*. 2022;5:CD004736.
- Putri, E.N. & Asmadinah, N., 2024. Risk Factors Associated With Anemia Among Pregnant Women In Medan. *Buletin Kesehatan Prima*, 9(2), Pp.101–109.
- POGI. National Clinical Practice Guideline on Anemia in Pregnancy. Jakarta: POGI; 2022.
- Rahmiwati, A. & Sabila, V.P., 2024. Factors Associated With Anemia Among Pregnant Women. *Indonesian Journal Of Health Nutrition*, 8(2), Pp.112–119.

- Rahman MM, Abe SK, Kanda M, Et Al. Maternal Anemia And Adverse Birth Outcomes. *Nutrients*. 2021;13(2):563.
- Sari EP, Handayani L. The Relationship Between Iron Tablet Consumption Adherence and the Incidence of Anemia in Pregnant Women. *Jurnal Kebidanan Indonesia*. 2024;15(1):55–63.
- Socha, D.S. & Deloughery, T.G., 2021. Iron Deficiency Anemia. *Medical Clinics Of North America*, 105(2), Pp.319–332.
- Stevens, G.A., Paciorek, C.J., Flores-Urrutia, M.C., Borghi, E., Namaste, S., Wirth, J.P. *Et Al.*, 2022. National, Regional, And Global Estimates Of Anaemia Prevalence In Women And Children. *Lancet Global Health*, 10(5), Pp.E627–E639.
- Suryati, E., Yuniati, F. & Utari, S., 2025. Determinants Of Anemia Among Pregnant Women In Indonesia. *Jurnal Kesehatan Masyarakat Indonesia*, 20(1), Pp.67–75.
- Smith C, Teng F, Branch E. Maternal Nutrition And Anemia During Pregnancy. *Journal Of Maternal Health*. 2023;15(2):88–96.
- Torrez, J., Smith, A. & Brown, P., 2022. Megaloblastic Anemia And Pregnancy Outcomes: A Review. *Journal Of Maternal Health*, 11(3), Pp.150–158.
- World Health Organization, 2024. *Anaemia In Women And Children: WHO Global Estimates 2024*. Geneva: World Health Organization.
- Yanuarti, T., Sari, M. & Lestari, P., 2025. Antenatal Care Visits And Anemia Prevention Among Pregnant Women. *International Journal Of Public Health Science*, 14(1), Pp.55–63. 21.
- Achebe MM, Gafter-Gvili A. How I Treat Anemia In Pregnancy. *Blood*. 2021;137(10):1317–1326.