

MIDWIFERY CARE MANAGEMENT FOR MRS. H G2P0A1 AT 11 WEEKS OF PREGNANCY WITH HIPERMESIS GRAVIDARUM LEVEL II AT SAM CLINIC IN 2025

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ABSTRACT

Background: Hyperemesis gravidarum (HG) is a complication of excessive nausea and vomiting in early pregnancy that can lead to dehydration, weight loss, and even threaten the safety of both mother and fetus. In North Sumatra Province, particularly in Medan city, the maternal mortality rate (MMR) is still a major health challenge and remains above the national target as well as the Sustainable Development Goals (SDGs) 2030. **Objectives:** To carry out structured and evidence-based midwifery care management for Mrs. H with Level II hyperemesis gravidarum at SAM Primary Clinic in 2025. **Methods:** This care uses a descriptive case study design by applying Helen Varney's 7-step midwifery management framework. **Conclusions:** Initial assessment showed Mrs. H experienced severe nausea and vomiting (5-7 times per day) for 10 days, which impacted her tolerance for nutritional intake. Interventions were carried out collaboratively, including intravenous rehydration with Ringer's lactate fluid, administration of antiemetics, nutrition counseling, and therapy Ginger. After 48 hours of intervention, the clinical evaluation showed significant improvement with the frequency of nausea and vomiting reduced to 2-3 times per day.

Keywords: Midwifery Care, helenvarney, Hyperemesis Gravidarum, First Trimester

INTRODUCTION

Hyperemesis gravidarum is excessive nausea and vomiting that occurs up to around 20 weeks of pregnancy. At 14 weeks (first trimester), the nausea and vomiting the mother experiences are so severe. Everything the mother eats and drinks is vomited, which affects her general condition and daily activities. She loses weight, becomes dehydrated, and there is acetone in her urine, not due to diseases like appendicitis, pyelitis, and so on.

Challenges in reducing maternal and child mortality rates remain a crucial issue globally. According to data from the World Health Organization (WHO), the current maternal death rate worldwide is about 260,000 cases each year. This represents a ratio of 197 deaths per 100,000 live births, which means around 712 women die every day—or roughly one maternal death every two minutes—due to pregnancy and childbirth complications. And the number of children

under five years old who die globally reaches 4.9 million cases per year. It makes us realize that nearly half of these cases, around 2.3 million, are newborn (neonatal) deaths in the first 28 days of life (Organization, 2024).

In Indonesia, the Maternal Mortality Rate (MMR) is still a significant health issue. According to the 2023 Indonesia Health Profile published by the Ministry of Health of the Republic of Indonesia, the number of maternal deaths was recorded at 4,005 cases in 2022 and increased to 4,129 cases in 2023. Meanwhile, the number of infant deaths was reported to reach 29,945 cases in 2023. Additionally, according to data from the Central Statistics Agency, the MMR in Indonesia is around 189 per 100,000 live births, while the Infant Mortality Rate (IMR) is 16.85 per 1,000 live births (Kemenkes, 2023).

The 2022 Indonesian Demographic Survey (SDKI) states that the maternal mortality rate (MMR) in Indonesia reached 248 per 100,000 live births. Meanwhile, in the city of Medan, the maternal mortality rate is estimated at 330 per 100,000 live births, showing that the maternal death rate is still higher compared to the national level (SDKI, 2023).

At the regional level, North Sumatra Province still faces similar problems. According to the North Sumatra Health Profile 2023 published by the North Sumatra Provincial Health Office, the number of maternal deaths was around 202 cases (Quenard et al., 2022), which is equivalent to ± 82 per 100,000 live births. Meanwhile, the number of infant deaths was reported to reach about 1,007 cases (North Sumatra Profile, 2023). On the other hand, in Medan City, the maternal mortality rate was reported to show an increasing trend in 2022-2023, rising from 9 maternal deaths to 23 cases in 2023 (Dinkes, 2023).

Efforts to manage hyperemesis gravidarum align with the goals of national and global health development. Within the framework of the Sustainable Development Goals (SDGs), especially goal 3 (Good Health and Well-being), the target is to reduce the maternal mortality ratio to less than 70 per 100,000 live births by 2030. In addition, in the national development agenda through Astacita, improving the quality of human resources, including maternal and child health, is a top priority to create a healthy and productive generation (United Nations Department of Economic and Social Affairs, 2025).

In accordance with the Vision and Mission of Stikes Mitra Husada Medan, midwifery care for Mrs. H with Hyperemesis Gravidarum is in line with the vision and mission which actively contributes to improving the degree of public health through reducing the morbidity rate of pregnant women in the North Sumatra region.

Based on previous research, data shows that mothers with hyperemesis gravidarum account for 14.8% of all pregnancies. Nausea and vomiting occur in 60-80% of first-time pregnancies and 40-60% of multiple pregnancies. In one out of every thousand pregnancies (Sari et al., 2022), these symptoms become more severe. This feeling of nausea is caused by increased levels of estrogen and Human Chorionic Gonadotropin (HCG) hormones in the serum. The infection rate in Indonesia is one of the main causes of maternal (Simanjuntak, 2019) infection. The physiological reason for this hormone increase isn't clear yet it might be due to the central nervous system or slower stomach emptying (Seni Prihatini, Ernita Prima Novita, 2024).

In carrying out midwifery care management for Mrs. H with Grade II Hyperemesis Gravidarum, I provided care, continuous monitoring, and evaluated the progress and improvements experienced. Based on the background above, I am interested in preparing a report entitled "Midwifery Care Management for Mrs. H at 14 Weeks of Pregnancy with Grade II Hyperemesis Gravidarum at Sam Primary Clinic in 2025."

METHODS

This study uses a descriptive case study design focusing on the application of midwifery care management in cases of Hyperemesis Gravidarum. The study employs Helen Varney's seven-step midwifery management framework, which consists of data collection, diagnosis identification, potential problem identification, immediate action, planning, implementation, and evaluation. The research was conducted at the Pratama SAM Clinic in Medan, North Sumatra, in 2025. Primary data were obtained through direct anamnesis and observation of vital signs. Written consent was obtained from the patients before collecting the data, and confidentiality will be maintained (Adiputra et al., 2021)

RESULTS AND DISCUSSIONS

A detailed assessment of Mrs. H, G2P0A1, who is 11 weeks pregnant, shows signs of Hyperemesis Gravidarum that has lasted for 10 days. Subjectively, the patient reports nausea and vomiting occurring 5-7 times a day. The high intensity of vomiting (Nainggolan et al., 2026), directly affects her ability to tolerate nutritional intake, as she states that she cannot consume food or drinks. Interventions were carried out collaboratively with the doctor by giving antiemetics that are safe for the fetus in the first trimester, such as a combination of B6 with folic acid, as well as providing Ringer's Lactate intravenously (Manurung, 2022). Besides giving antiemetics, the midwife approached the patient through education or counseling about her current needs, explaining a good eating pattern for mothers, which is eating small amounts but frequently, while paying attention to nutrition (Manurung et al., 2025).

From that diet, it started with high carbohydrates and low fat. The midwife also provided natural therapy to reduce excessive HCG levels by consuming boiled corn. Monitoring was also done by regularly observing vital signs. After a 48-hour intervention period, the clinical evaluation showed a significant process with nausea and vomiting reduced to 2-3 times a day.

DISCUSSIONS

Pathophysiology Analysis and Theoretical Correlation

The case of Mrs. H reflects the manifestation of hyperemesis gravidarum, which starts from hormonal imbalance during pregnancy. Theoretically, the increase in Human Chorionic Gonadotropin (HCG) and estrogen levels in the first trimester has a direct stimulating effect on the chemoreceptor trigger zone (CTZ) in the brain, triggering (Munthe et al., 2022) the nausea-vomiting reflex (Simanullang & Sari, 2024). If this condition is left untreated, it can lead to complications that may cause metabolic acidosis and threaten the well-being of both the mother and fetus through intrauterine acidosis (Kemenkes, 2023).

The management that has been given in this care is intensive rehydration using Ringer's Lactate for Mrs. H, which is considered the gold standard in HG management, and the use of Vitamin B6 in this case acts as a coenzyme in amino acid metabolism that can ease the transition in the central vomiting nerves (Siti Nurmawan Sinaga, 2025). Also, Vitamin and Folic acid are for the process of forming new cells and genetic material.

The Role of Midwife Strategies in Efforts to Reduce Morbidity

The implementation of Varney's 7 steps in this case proves that structured midwifery management can prevent a patient's condition from worsening from HG II to the more severe HG III. The role of the midwife isn't just about setting up IVs, but also involves critical analytical skills in continuously monitoring vital signs and signs of dehydration, educating on nutritional needs and herbal therapy for the (Sinaga & Sembiring, 2022) mother, as well as providing psychological support. By promptly intervening with patient Mrs. H, the midwife helped minimize the risk of fetal complications like low birth weight. This study emphasizes that structured (Sari et al., 2022), evidence-based care is key to ensuring maternal health amid the high health challenges in North Sumatra.

CONCLUSIONS

Based on Helen Varney's management report of Mrs. H (G2P0A1) with Hyperemesis Gravidarum at SAM Primary Clinic, it can be concluded that HG is a serious pregnancy complication that requires early detection, comprehensive assessment, and structured midwifery intervention. Helen Varney's 7-step approach has proven effective in identifying key problems, diagnosis, planning, implementation, and evaluation. With proper management, the outcomes for pregnant women can be better, hospital stay risks can decrease, and the quality of midwifery services can improve (Rorrong et al., 2021)

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CONFLICT OF INTEREST AND FUNDING DISCLOSURE

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All the authors actively contributed to writing this article

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