

## Visit report of anemia in pregnancy case with blood type ab+ through a family medicine approach

Tamara Muliani<sup>1</sup>, Margaretha Pramesthi Utari<sup>2</sup>, Ella Windasari Gultom<sup>3</sup>, Silviana Tirtasari<sup>4</sup>  
<sup>1,2,3,4</sup>, Tarumanagara University

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### ABSTRACT

One of the direct causes of maternal mortality is anemia in pregnant women. In 2020, 36.5% of pregnant women suffered from anemia, and a 50% reduction is targeted for anemia in women of reproductive age in 2025. The incidence of anemia in pregnant women at Tangerang Regency in 2020 was 9,652 people. In the working area of the Cikupa Public Health Center, there was an increase in the rate of anemia in pregnant women. One of the cases is when Mrs. SH's increased Hb level becomes > 11 mg/dL and knowing the risk of anemia. Mrs. SH, 32 years old, came to the Cikupa Health Center G3P2A0 with a gestational age of 23 weeks. Laboratory results of hemoglobin 9.9 g/dL and blood group AB+. The patient had an anemic pregnancy for the first time and was a high-risk pregnancy due to a history of cesarean section, obesity, and the possibility of a transverse fetus. After the intervention, the patient's Hb level increased to 11.3 g/dL, the cause of anemia in Ny. SH is the patient's nutritional intake that did not vary, and she is lazy to control her pregnancy. The risk factors for Mrs. SH experienced anemia due to a lack of nutritious food intake, especially foods containing much iron, and not routine pregnancy control due to lack of attention in the third pregnancy. After the intervention, Mrs. SH increased to 11.3 g/dL.

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#### Corresponding Author:

Tamara Muliani

Department Public Health

Tarumanagara University

Letjen S. Parman 1, Tomang, Grogol petamburan, Jakarta, Indonesia

Email: [tamaramuliani@gmail.com](mailto:tamaramuliani@gmail.com)

## INTRODUCTION

Family medicine is a medical specialty that provides ongoing and comprehensive health care to individuals and families (American Academy of Family Physician (AAFP), 2019). The scope of family medicine includes all ages, all genders, organ system cells, and every disease identity. Family medicine functions in taking the first steps in solving problems that patients have using biomedical science, psychology, and medical sociology (Anggraini & Al, 2015; Khoiriah Rapi et al., 2022).

Blood type O is the most common blood group in Indonesia (NCT04898569, 2021). The Directorate General of Population and Civil Registration recorded that 3,175,187 people had blood

type AB, 7,926,326 people had blood type A, 8,036,227 people had blood type B, and 16,878,049 people had blood type O (*Dirjen Dukcapil*, 2021).

Anemia in pregnant women is an indicator to determine public health degree and is a direct cause of maternal mortality (Chowdhury et al., 2014; Dinisari, 2020; Shahverdiyeva & Aliyev, 2018; Silvia et al., 2022). This mortality rate is still a major problem faced in Indonesia. Based on the results of the latest Inter-Census Population Survey (SUPAS) conducted by the Central Statistics Agency (BPS) in 2015, the maternal mortality rate was 305 per 100,000 live births (Population and Family Planning Agency) (*Dirjen Dukcapil*, 2021).

Pregnant women are stated to be anemic if their hemoglobin level is <11.0 g/dl in the first trimester of pregnancy or <10.5 g/dl in the second and third trimesters of pregnancy (RI, 2018; Zhou et al., 2022). An increase in premature births, maternal and child deaths, infectious diseases, and impaired growth and development of the fetus are the effects of anemia in pregnant women (InfoDATIN, 2015; Intan Fitriyani et al., 2022; Sukmawati, 2018).

According to the WHO (2021), 36.5% of pregnant women suffered from anemia in 2020. Southeast Asia had an incidence of anemia in pregnant women of 52% in 2011 (Sunuwar et al., 2020). In 2025, WHO is targeting a 50% reduction in the incidence of anemia in women of reproductive age (World Health Organization, 2012). Based on Basic Health Research (*Riskesdas*), 48.9% of pregnant women in Indonesia suffered from anemia in 2018 (Adekanye & Theron, 2018). In 2020, the incidence of anemia in pregnant women in Tangerang Regency, Banten Province, was 9,652 people (*Dinkes*, 2021). The working area of the Cikupa Health Center experienced an increase in anemia rates in pregnant women every month from June 2022 to August 2022 by 20 (32.3%), 21 (33.9%), and 22 (35.5%), respectively. A patient named Mrs. SH, 32 years old, is a patient at the Cikupa Health Center with a gestational age of 23 weeks. The patient complained of getting tired easily but had no complaints such as nausea, vomiting, dizziness, or lightheadedness. On supporting examination, the laboratory result of hemoglobin was 9.9 g/dL. The patient has blood type AB+. This case was quite interesting to be selected as a family medicine case because the patient experienced a mild anemia pregnancy for the first time and had a blood type that was difficult to find, AB+. The patient also had a high-risk pregnancy because of a history of sectio caesarea surgery. Her weight was classified as obese, and the possibility of the fetus with a transverse position. When Mrs. SH was not visited, it was feared that the patient would not experience an increase in hemoglobin levels and to avoid the impact that could occur due to anemia in pregnancy.

## RESEARCH METHOD

This type is qualitative research with a case study approach (Sugiyono, 2017, 2018, 2019). Case taking was carried out at the working area of Public Health Center (*Puskesmas*) Cikupa, Cikupa Sub-district, Tangerang Regency, Banten Province.

## RESULTS AND DISCUSSIONS

A 32-year-old G3P2A0 woman at 23 weeks' gestation came for antenatal care. The first day of the patient's last menstruation fell on April 12, 2022. The patient had an ultrasound and checked for pregnancy in any place on August 28, 2022, and was provided blood-boosting tablets and calc. She has become tired and weak in the past two weeks, so she tends to sleep and is lazy to do activities. The patient has a history of SC 2 times because of latitude and normal birth weight. The patient eats 2-3 times a day with less varied foods, especially foods rich in iron, and she drinks warm sweet tea every morning. Patients tend to be lazy to control pregnancy. The patient takes blood booster tablets and calc simultaneously. The patient's physical examination showed that the patient's conjunctiva was anemic. Routine blood tests found the patient's Hb was 9.9 g/dL and ht was 31%.

The diagnostic approach to the family is divided into five aspects. Holistic Diagnostics in aspect I (Personal Aspect), namely pregnancy control and complaints in the form of fatigue and weakness for about two weeks, so the patient tends to sleep and is lazy to do activities. Aspect II (Clinical Aspect), the main diagnosis results stated that the mother is G3P2A0 23 weeks pregnant with fetal position and is still transverse with mild anemia and obesity. In Aspect III (Internal Aspect), it is known that Mrs. SH has less knowledge about anemia in pregnant women and has a lifestyle with a food pattern that is not maintained in terms of quality and quantity. In Aspect IV (External Aspect), it is known that the family lacks knowledge about the nutritional needs of pregnant women and the impact on the health of the mother and fetus. The lack of attention from Mrs. SH regarding the conditions experienced by Mrs. SH, the whole family of Mrs. SH does not have BPJS health, and her husband's income needs to be fixed. In aspect V (Functional Aspect), based on the following functional scale, the functional status of Mrs. SH is 5, and she can carry out daily activities fully without hindrance.

The first visit was carried out on September 19, 2022, at 10.00 WIB at the KIA polyclinic at the Cikupa Health Center. Activities include introducing yourself, history taking, physical examination, and carrying out supporting examinations. Then explain the plan and purpose of visiting the patient's home and the treatment given to the patient. The second visit was on September 23, 2022, at 14.00 WIB at Mrs. sh. The activities carried out included further history taking, physical examination on general status, asking about the habits of the patient and his family, menstrual patterns, treatment patterns for each pregnancy, observing the patient's condition and home environment, and checking blood pressure. Patients were asked to remember the previous day's food, from breakfast to dinner.

The third visit was held on September 30, 2022, at 15.15 WIB at Mrs. SH. The activities carried out included inquiring more deeply about the patient's economic condition, the number of the patient's relatives and husband, the patient's and family's immunization history, treatment patterns, eating patterns after being given education, and calculating the area of the building and its rooms, as well as looking at landfills, waste, and water source for daily needs. The fourth visit was carried out on October 3, 2022, at 12.30 WIB at the KIA polyclinic at the Cikupa Public Health Center. Activities carried out were pregnancy control and re-examination of Hb.

From the results of monitoring the personal aspect, it is known that the condition is golden and easily tired during about two weeks of pregnancy, so the patient tends to sleep and is lazy to do activities. The pharmacological management plan is Calk 1x500 mg (1 tab) after meals, NeoTTD (Fe + Folic Acid) 1x1 tab after meals, and Vitamin B complex 1 x 1 tab after meals. The non-pharmacological management plan aims to explain the rules for taking medication, provide education about foods that are good for pregnant women to consume, provide education on the importance of consuming fruits as a distraction, especially fruits rich in vitamin C, and provide education about reducing the consumption of foods or drinks that contain caffeine and tannins which can inhibit iron absorption.

In the clinical aspect, TTD Neo (Fe + Folic Acid) was provided 1x1 tablet, 1x1 vitamin B complex, and 1x1 tablet calc. Besides administering medication, the action of providing education was taken to Mrs. SH regarding anemia in pregnant women, starting from understanding anemia, its causes, risk factors, signs and symptoms, management and complications, and drug consumption. Neo TTD (Fe+Folic acid), calc, and vitamin B complex are consumed once a day and taken regularly every day. Give a time gap between drinking calc and Neo TTD (Fe+Folic Acid) and educate Mrs. SH to routinely carry out pregnancy control with antenatal care visits. Through its education, the patient understands the causes of anemia, management, and complications that can occur, she gives the distance from taking Neo TTD (Fe+Folic Acid) with calc for about 30 minutes, and the patient understands the importance of prenatal check-ups and will routinely control every month.

On the internal aspect, management is carried out by educating Mrs. SH about what foods can improve nutrition in pregnant women so that health problems do not occur in the mother and the growth and development of the fetus. Then, providing assistance in the form of milk for pregnant women, vegetables, fruit, eggs, and green beans; educating Mrs. SH about anemia in pregnant women, starting from understanding anemia, its causes, risk factors, signs and symptoms, management, and complications. Besides the mother's knowledge, the lack of knowledge possessed by families regarding the nutritional needs of pregnant women and the impact on the health of the mother and fetus is also a problem. Management is carried out by educating pregnant women about good food that must be consumed and explaining the impact of less nutritious intake on the mother and her fetus. So that the patient's food is more varied, with balanced nutrition and adequate portions, because she is worried about the impact that will arise, especially on the fetus, if there is less intake of nutritious food.

## CONCLUSION

It is known that the cause of anemia in Mrs. SH is a lack of nutritious food intake, especially foods containing lots of iron, and not routine pregnancy control due to a lack of attention to the third pregnancy. Internal and external factors holistically by Mrs. SH cause anemia, namely from internal factors that the patient's food pattern is not maintained in terms of quality and quantity. Besides, lack of knowledge about anemia in pregnant women and a feeling of laziness to control pregnancy. Then, the external factors include the lack of knowledge that families have about the nutritional needs of pregnant women, the impact on the mother and fetus health, the husband of the patient who does not provide sufficient support, the whole family does not have BPJS health, and uncertainty her husband's income. Management is carried out holistically and comprehensively to address the health problems experienced by Mrs. SH. It aims to educate Mrs. SH about what foods can improve nutrition in pregnant women so that health problems do not occur in the mother and the growth and development of the fetus. The other action is providing assistance in the form of milk for pregnant women, vegetables, fruit, eggs, and green beans. Then, education about anemia, causes, risk factors, signs and symptoms, management, complications, and the role of the family as a patient companion to Mrs. SH and her husband, education about the importance of pregnancy control and education for the patient's husband to provide support, enthusiasm, love, affection, and acceptance of the patient's current condition which can affect the patient's psychological condition and accompany the patient as much as possible whenever she goes to public health services. Explaining the benefits of BPJS and offering assistance to manage BPJS. The results of the management that have been carried out on Mrs. SH, among others, the patient begins to eat a more varied diet and pays attention to good nutrition for pregnant women. The patient begins to consume milk for pregnant women, and she and her husband understand the meaning of anemia, risk factors, symptoms, management, and complications. The patient understands the importance of prenatal checks and will routinely control them every month. The patient's husband pays more attention to food and activities carried out by the patient and more often helps the patient's work and accompanies the patient until they finish the examination and go home no longer just accompanying them. Last, the patient will rethink registering BPJS.

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