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# The Influence Of Anemia In Pregnancy With The Incident Of Postpartum Bleeding At Guido Valadares National Hospital Dili Timor Leste

Mafalda Guterres De Carvalho<sup>1\*</sup>, Atik Setiawan Wahyuningsih<sup>2</sup>, Alfian Fawzi<sup>3</sup>, Saifulah Said<sup>4</sup>

<sup>1,2,3,4</sup>Institut Ilmu Kesehatan STRADA Indonesia \*Corresponding author: carvalhofaty0@gmail.com

#### **ABSTRACT**

Anemia is a deficiency (deficiency) of red blood cells due to low hemoglobin levels. The lower the mother's hemoglobin level, the greater the risk of postpartum hemorrhage. Objective This study was to analyze the effect of anemia in pregnancy on the incidence of postpartum hemorrhage at the Guido Valadares National Hospital, Dili, Timor-Leste. Method The research used in this research is analytical observational in nature using two independent and dependent variables which require a population of all mothers giving birth, as many as 436 people and some mothers as a sample of 54 people. Instrument study used data from the laboratory, register book, from the Antenatal Book, observation sheets. The tools used are bent, underpad, softex. Analysis The collected data used was processed in a computer system using the SPSS for Windows version 16.0 program which includes univariate and bivariate analysis. Results this research found p=0,004 < 0,05 So this means that there is an influence of anemia in pregnancy on the incidence of postpartum hemorrhage in NASIONAL GUIDO VALADARES. *Chi square Value*= 0,004 *Continuity Correction V*=6,509. Conclusion This research shows the influence of anemia in pregnancy on postpartum hemorrhage in HNGV in 2020.

**Keywords:** Anemia, Postpartum Hemorrhage.

# **INTRODUCTION**

Anemia in pregnancy increases the risk of postpartum hemorrhage. The lower the mother's hemoglobin level, the greater the risk of postpartum hemorrhage (Frass, Kaima A., 2015).

Maternal Mortality Rate (MMR) is one indicator to measure the level of women's health. The maternal mortality rate is a health problem that attracts WHO's attention. Facts show that more than 350,000 worldwide die every year due to complications of pregnancy and childbirth (Priyanto, 2009). The MMR in Indonesia is also still relatively high when compared with Southeast Asian countries, which is in eighth place out of 18 countries, amounting to 240 per 100,000 KH, followed by India (230 per 100,000 KH), Bhutan (200 per 100,000 KH), and the Philippines amounting to 94 per 100,000 KH (Ministry of Health of the Republic of Indonesia, 2012).

Timor Leste's AKI from 2010 was 557/100,000 live births and decreased in 2016 to 218/100,000 live births. The causes of AKI in Timor Leste are bleeding 0.6%, eclampsia 0.6%, obstructed labor 0.8%, sepsis puerperium 0.1%, abortion 1%, data from (MDS, 2018) the incidence of anemia in pregnant women is 39.5%, new achievement is 45.5g/dl (Food and Nutrition Survey, 2013). The incidence of anemia in pregnant women worldwide is 41.8% (Salmariantity, 2012). According to Ministry of Health statistics in 2010, 18% of pregnant

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women experienced mild anemia, 4.2% moderate anemia, 6% severe anemia (Hb 7gr/dl), the frequency in pregnancy is quite high, ranging between 10% and 20%.

The high rate of anemia that affects pregnant women has a negative impact on the fetus carried by the mother during pregnancy, childbirth and postpartum, including babies born with low birth weight (LBW), premature parturition, abortion, postpartum hemorrhage, prolonged parturition and shock. Other factors are nutritional status, age. and work. (Sarwono Prawirohardjo, 2011)

In line with Rosmiyati's (2015) research, the type of research used in this research is analytical observational. Bleeding During Childbirth From the results of the study it can be seen that of the 58 mothers who experienced anemia during pregnancy, 42 people experienced bleeding during childbirth (72.4%), while 16 people did not experience bleeding during childbirth (27.6%). Apart from that, of the 62 mothers who did not experience anemia during pregnancy, 18 people experienced bleeding during childbirth (29%), while 44 people did not experience bleeding during childbirth (71%). From the results analysis use *Chi Square*, we get P-Value = 0.000, so P-Value  $< \alpha$  (0.000 < 0.05) so Ho is rejected. So it can be concluded that there is a relationship between anemia during pregnancy and bleeding during childbirth. (*District Journal. Vol 1, Number 2*, 2015).

According to Oxon (2010), the direct causes of postpartum hemorrhage are uterine atony, retained placenta, trauma to the birth canal, and coagulopathy disorders. Apart from these factors, other predisposing factors are maternal age, partial, birth canal and anemia. This is in accordance with research conducted by (Santoso, 2004). that mothers who are anemic have a 6 times risk of experiencing postpartum hemorrhage.

The results of research by Salis Nawalin (2004) showed several maternal characteristics that influenced the incidence of postpartum hemorrhage at Dr.H Regional Hospital. Sowendo Kendal, the results showed that anemia had a significant relationship (p=0.01) with the incidence of postpartum hemorrhage.

# **METHOD**

The research method used is analytical with a cross sectional design. The population of this study was all 436 mothers giving birth.

The samples in this study were 54 mothers who experienced anemia and experienced postpartum hemorrhage recorded in the register book. The data collected is primary data taken from register books and ANC books as well as results from the laboratory at HNGV Dili Timor-Leste. The unilabiate and bivariate analyzes were entered into the SPSS program computer system. With Chi Square Test.

#### **RESULT**

#### Univarate analysis

Based on univariate analysis, it can be seen that 42 mothers who gave birth at the Hospital Nacional Guido Valadares found that there were 42 (77.7%) mothers who experienced anemia during pregnancy and 19 or (35.2%) who experienced post-partum hemorrhage, all 208 respondents.

# **Bivariate Analysis**

From test results *Chi Square* Research obtained shows that those who experience anemia have a smaller effect on postpartum bleeding with a total of 45.5% compared to those who do not experience bleeding, 54.8%. Based on statistical tests with *Chi Square* showed that there was a relationship between postpartum hemorrhage and anemia in pregnancy at HNGV Dili Timor-Leste from the results *cross sectional P Value=0.004* 

Based on table 1, it shows that the age frequency distribution of mothers giving birth is the highest being mothers aged 26-30 years (27.8%). Compared to other ages

No	Age category	Frequency	Percent	
1.	17-20	8	14.8	
2.	20-25	11	20.4	
3.	26-30	15	27.8	
4.	31-35	10	18.5	
5.	36-42	10	18.5	
	Total	54	100.0	

Table 1.

Based on table 2, the highest frequency of work for mothers giving birth is 21 people (38.9%) as housewives compared to working mothers.

No	Job category	Frequency	Percent
1.	House wife	21	38.9
2.	Government employees	13	24.1
3.	Private	9	16.7
4.	Farmer	5	9.3
5.	Businessman	6	11.1
	Total	54	100.0

Based on table 3, it shows that more respondents in the anemia category experienced anemia with a total of 42 people or 77.8% compared to 12 (22.2%) who were not anemic.

No	Anemia category	Frequency	Percent
1.	Anemia	42	77.8
2.	No	12	22.2
	Total	54	100

Based on table 4 shows the distribution of bleeding frequency 19respondents or 35.2% and did not experience postpartum hemorrhage 35 (64.8%). In National Guido Valadares Dili Timor-Leste

No	Bleeding category	Frequency	Percent
1.	Bleeding	19	35.2
2.	No	35	64.8

Based on table 5. It is known that of the 208 respondents who experienced bleeding in the anemia category 19 (45.2%), and those who were not anemic 12 (22.2%), while the respondents who did not bleed were in the anemia category 23 (54.8%), so respondents who did not experience bleeding were 64.8

Anemia	Bleedin	g Category	P_Value
Category	Bleeding	No	
Anemia	19	23	
	45,5 %	54,8%	
No	0	12	0,004
		100%	
Total	19	35	
	35,2%	64,8%	

Based on table 6, the results of the study show that those who experience anemia have a smaller effect on postpartum bleeding with a total of 45.5% compared to those who do not experience bleeding, 54.8%. Based on statistical tests with *Chi Square* showed that there was a relationship between postpartum hemorrhage and anemia in pregnancy at HNGV Dili Timor-Leste from the results *cross sectional P Value*=0.004.

Chi Square

	Value	df	Asymptotic	Exact	Exact Sig.
			Significance	Sig. (2-	(1-sided)
			(2-sided)	sided)	
Pearson Chi-Square	8.376 <sup>a</sup>	1	.004		
Continuity Correction	6.509	1	.011		
Likelihood Ratio	12.204	1	.000		
Fisher's Exact Test				.004	.002
N of Valid Cases	54				

### **DISCUSSION**

Based on the research results, this number gave birth at the Guido Valadares National Hospital, Dili, Timor-Leste. A total of 436 mothers gave birth, of which 208 respondents were mothers whose hemoglobin levels were recorded

Number of mothers giving birth with anemia at Hospital Nacional Guido valadares (HNGV) Dili Timor-Leste

Based on the results of research carried out by looking at the register books in the obstetrics room and looking at the ANC book, as well as the results from the laboratory. So 42 mothers were recorded as anemic or (77.8%).

Number of cases of postpartum hemorrhage due to anemia at Guido Valadares National Hospital (HNGV) Dili Timor-Leste

Based on the research results in table 4. It is known that the incidence of postpartum hemorrhage at HNGV Dili from January to February experienced bleeding in 19 people or 35.2%. Of the 54 respondents who did not experience postpartum hemorrhage, 64.8%.

Relationship between anemia and the incidence of postpartum hemorrhage at the Guido Valadares National Hospital (HNGV) Dili Timor-Leste

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Based on the results of this study, it can be seen that of the 208 people who experienced anemia, 42 people or (77.8%) experienced postpartum hemorrhage, totaling 19 people or (35.2%). Results of data analysis between maternal anemia and the incidence of postpartum hemorrhage at HNGV Dili. There is a significant relationship, where mothers who experience anemia will influence the incidence of postpartum hemorrhage.

From the data obtained, 77.8% of the 54 respondents experienced anemia and 35.2% of the respondents experienced postpartum bleeding, while 64.8% of those who did not experience bleeding.

The analysis results show that *p*- Chi Square 8.376, Continuity Correction 6.509 Likelihood Ratio 12.204 meaning *p*-Chi Square 0.004 ( $\alpha$  <0,05), So it can be concluded that anemia in pregnancy has a significant relationship with postpartum hemorrhage.

# **CONCLUSION**

This research was conducted at HNGV Dili Timor-Leste, namely regarding the effect of anemia in pregnancy on the incidence of postpartum hemorrhage in the maternity room.NATIONAL GUIDO VALADARES Dili Timor-Leste. Respondents who experienced bleeding in the anemia category (45.2%) respondents in the anemia category did not experience postpartum bleeding (54.8.2%) while 22.2% of respondents who did not experience anemia, respondents in the anemia and non-anemia categories did not experience postpartum bleeding. postpartum hemorrhage 64.8%. With test results *Chi Square* obtained mark *p-value 0,004* ( $\alpha < 0.05$ ). So it can be concluded that there is an influence of anemia in pregnancy on the incidence of postpartum hemorrhage at the Guido Valadares National Hospital Dili Timor-Leste 2020.

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