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Factors Causing Neonatal Death At Panembahan Senopati Bantul Hospital In 2021–2022

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ABSTRACT
Neonatal Deaths in the Special Region of Yogyakarta (DIY) in 2021 areranked 8th lowest out of 34 Provinces in Indonesia with 212 cases, (RI Ministry of Health, 2022). The objective to find out the description of neonatal mortality faktors at Panembahan Senopati Hospital, Bantul in 2021 – 2022. The method used in this research is descriptive quantitative cross-section research design with the Secondary Data Analysis (SDA) approachto medical records at Panembahan Senopati Bantul Hospital in 2021 - 2022. The sample method is a total sampling of 47 respondents. Research Results: The highest percentage of research results regarding the description of neonatal mortality faktors at Panembahan Senopati Hospital, Bantul Regency in 2021-2022, namely infants aged 0-28days, died of asphyxia asmany as 33babies (70%), gestational age of 28 mothers (60%), occupation 26 mothers (55%), Low Birth Weight 53 babies (25%), Parity 22 mothers (47%), Other Causes 18 cases (38%), Sepsis 18 babies (38%), Type of Childbirth 15 mothers (32%), Status Referral 13 cases (30%), Education 13 mothers (28%), Age 12 mothers (26%), Anemia Status 11 mothers (23%), Congenital Abnormalities 7 babies (15%), Antenatal Care Visits 4 mothers (9%), Delivery Place 2 case s(4%), Delivery Assistance 2 cases (4%), Jaundice 0 cases (0%). There are factors of neonatal death based on maternal factors, infant faktors, health service factors and other faktors at Panembahan Senopati Hospital in 2021-2022.

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INTRODUCTION

The United Nations Children's Fund (UNICEF) states that death in the neonatal period is at greater risk because the neonatal period is a critical period for a baby's life. Children face the highest risk of death in their first months of life. In line with previous research, it was found that it is difficult to reduce the neonatal mortality rate because the neonatal period is a period of radical adjustment for babies, most importantly in a very new and very different environment. (UNICEF, 2018)

The proportion of child deaths that occurred in the neonatal period in all countries over the last 25 years, where in 2020, there were 2.4 million deaths or approximately 45 percent of deaths occurred in the neonatal period of all under-five deaths. Of this number, almost 1

million neonatal deaths occurred at birth or less than 24 hours after birth, and almost 2 million neonatal deaths occurred in the first week of life. WHO has determined several countries that have high neonatal mortality rates. (WHO, 2022). The results of the 2017 Indonesian Demographic and Health Survey (SDKI) show a Neonatal Mortality Rate (AKN) of 15 per 1000 live births and an Infant Mortality Rate (IMR) of 24 per 1000 live births (Indonesian Health Profile, 2018). According to data from the Ministry of Health of the Republic of Indonesia (Kemenkes RI) in 2022, the most common cause of neonatal death in Indonesia in 2021 was Low Birth Weight (LBW) at 34.5% and asphyxia at 27.8%. Other causes of death include congenital abnormalities, infections, COVID-19, neonatal tetanus, and others.

Neonatal deaths in the Special Region of Yogyakarta (DIY) in 2021 were ranked 8th lowest out of 34 provinces in Indonesia with 212 cases, while the highest AKN cases were in Central Java province with 3101 cases and the lowest were in North Kalimantan with 97 cases (Kemenkes RI, 2022). It tends to be good to see that DIY is not among the highest AKN contributors in Indonesia. However, we are not just silent because AKN definitely has causes that should be minimized because it is included in the health indicators that are considered the most sensitive. (DIY Health Profile, 2021). According to data from the Ministry of Health of the Republic of Indonesia (Kemenkes RI) in 2022 The leading cause of neonatal death in Indonesia in 2021 is the condition of Low Birth Weight (LBW) is 34.5% and asphyxia amounting to 27.8%. Other causes of death include congenital abnormalities, infections, COVID-19, neonatal tetanus, and others. Based on medical record data from Panembahan Senopati Hospital, Bantul, in 2021 - 2022 there were 47 cases of neonatal death. So researchers are interested in further examining the description of the factors causing neonatal deaths at Panembahan Senopati Hospital, Bantul in 2021 - 2022.

METHOD

The method used in this research is descriptive quantitative cross-section research design with the Secondary Data Analysis (SDA) approach to medical records at Panembahan Senopati Bantul Hospital in 2021 - 2022. The sample method is a total sampling of 47 respondents. The data used in this study was obtained manually from medical records with cases of neonate death at Panembahan Senopati Bantul Regional Hospital, which had been documented in the medical records, then entered and analyzed based on the causal factors. Data analysis using descriptive statistics for one factor variable causing neonatal death with presentation using graphs.

RESULTS AND DISCUSSION

Results

Based on the results of sample research using secondary data taken from 2021 - 2022, 47 respondents were obtained with the following results:

Causes of Neonatal Death based on Maternal Factors

Table 4. 1 Frequency Distribution of Respondents Based on Maternal Factors

No	Variable	Category	Frequency	%
1.	Gender	<20or>35 years	12	26
		20 – 35 years	35	74

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No	Variable	Category	Frequency	%
2.	Education	Low	13	28
		High	34	72
3.	Work	Working	26	55
		Not working	21	45
4.	Anemic Status	Anemia	11	23
		Not anemia	36	77
5.	ANC visit	< 4 times	4	9
		≥4 times	43	91
6.	Types of Childbirth	Spontaneous	15	32
		Action	32	68
7.	Parity	1 and≥ 4	22	47
		2and 3	10	21
		0	15	32
8.	Gestational Age	<37 weeks and>42 weeks	28	60
		37 – 42 weeks	19	40

Source: Secondary Data, 2021 – 2022.

Based on the data in table 4.1 , more than half of mothers work 26 mothers experienced neonatal death (55%). Then less than half of mothers with infant deaths aged 0 – 28 days are mothers with parity 1 and ≥ 4 as many as 22 mothers (47%), mothers with age of pregnancy as many as 19 mothers (40%), mothers with types There were 15 mothers (32%), mothers who were educated low (SD – SMP) as many as 13 mothers (28%) and mothers aged <20 or >35 years as many as 12 mothers (26%). The last one is part 48 small results from the causes of neonatal death in Panembahan Regional Hospital Senopati 2021 – 2022 based on maternal factors, namely mothers with anemia as many as 11 mothers (23%) and mothers with *Antenatal visits Care* (ANC) < 4 times as many as 4 mothers (9%).

Causes of Neonatal Death from Infant Factors

Table 4. 2 Frequency Distribution of Respondents Based on Factors

No	Variable	Category	Frequency	%
1.	Gender	Male	24	51
		Female	23	49
2.	Jaundice		0	0
3.	congenital abnormalities		7	15
4.	sepsis		18	38
5.	LBW		25	53
6.	Asphyxia		33	70

Source: Secondary Data, 2021 – 2022.

Based on the data in table 4.2 , more than half of the neonates experienced death, namely 33 babies with asphyxia (70%), there were 25 babies with low birth weight (LBW). (53) and 24 male babies (51%). then less than half of the babies with sepsis were 18 babies (35%) died. next is a small number of babies aged 0 – 28 died due to congenital

abnormalities as many as 7 babies (15%) and no cases of neonatal death were found at RSUD 49 Panembahan Senopati Bantul in 2021 – 2022 which is caused by jaundice .

Causes of Neonatal Death based on Service Factors Health

Table 4. 3 Frequency Distribution of Respondents Based on Service Health

No	Variable	Category	Frequency	%
1.	Childbirth assistant	Health Personnel	45	96
		Non Health Personnel	2	4
2.	Place of birth	Medical facility	45	96
		Non- Health Facilities	2	4
3.	Referral status	Referral	7	15
		Not referral	40	75

Source: Secondary Data, 2021 – 2022.

Based on table 4.3, neonatal mortality is based on factors services , a small percentage of births are assisted by non-workers health as many as 2 cases (4%), a small number also gave birth took place in non-health facilities as many as 2 cases (45%) and portion were referral patients, totaling 7 cases (15%).

Causes of Neonatal Death based on Other Factors

Table 4. 4 Frequency Distribution of Respondents Based on Cause Other

No	Other Causes	Frequency	%
1.	Pneumonia	9	19
2.	COVID- 19	3	6
3.	Hipotermi	2	4
4.	RDS	2	4
5.	Hiperbilirubin	2	4
6.	Efek VE	1	2
7.	HMD	1	2
8.	*DistressRespiration*	1	2
9.	Cardiogenic Pulmonary Edema	1	2
10.	SAM	1	2

Source: Secondary Data, 2021 – 2022.

Based on table 4.4, there are other causes deaths at Panembahan Senopati Regional Hospital in 2021 – 2022 Of the other causes, a small part is pneumonia 9 cases (16%), Covid – 19 3 cases (65%), babies with hypothermia 2 cases (4%), RDS (*respiratory distress syndrome)* or dysfunction respiratory problems in neonates there were 2 cases (4%), Hyperbilirubinemia 2 cases (4%), and there are several causes with each each , namely 1 case (2%) including the effect of VE (Vacuum Extraction), HMD *(Hyaline Membrane Disease)* or disorders breathing in neonates, *Distress Respiration* , Pulmonary Edema cardiogenic and SAM (Meconium Aspiration Syndrome)

DISCUSSION

The results of this study show that more than half of the babies were born at the mother's gestational age <37 weeks and > 42 weeks 28 babies (60%), and 19 babies were born at 37 – 42 weeks gestational age (40%), This research is in line with research

conducted by Morwarti (2015) stated that babies born at < 37 weeks or > 40 weeks of gestation had a risk of 6.33 times greater than babies born at 37-40 weeks of gestation.

Neonatal asphyxia is the main cause of high morbidity and mortality in neonates. In developed countries, the incidence of asphyxia is found to be 0.3 - 0.9% of all live births. This incidence is higher in developing countries. (Azizah and Oktawioro, 2017). The results of this study stated that more than half of the babies died due to asphyxia, namely 33 babies (70%), while those who did not experience asphyxia were 13 babies (30%). This is in line with research by Azizah and Oktiaworo (2017) which shows that there is a relationship between asphyxia and neonatal death, namely that babies who experience asphyxia have an 8.8 times greater risk of experiencing neonatal death compared to babies who do not experience asphyxia.

The place of birth is one of the factors that can influence the psychology of the birthing woman. Inappropriate choice of birthing place and birth attendant will have a direct impact on the mother's health. There are at least two choices of place to give birth, namely at the mother's house or at a health service unit. (Rusnawati, 2012). Based on the results of research by Rohaeti et al (2019), it shows that the place of delivery at home is 12x greater than that assisted by a Health Service Center. This is a risk factor for death in neonates, as shown by research results (Fitriyanidkk, 2016) that poor accessibility is around 57.4% compared to good accessibility, namely 42.6%, although it is not a direct cause of neonatal death. Similarly, this study states that most of the neonatal deaths occurred in health facilities, 45 cases (96%), namely hospitals, 38 cases, 4 cases in PMB, 2 cases in clinics, 1 case in the health center, while in non-health facilities, babies were born. home as many as 2 cases (4%).

Data from Riskesdas (2013) states that pneumonia is ranked second as the cause of infant death in Indonesia (23.8%). At Panembahan Senopati Regional Hospital, the incidence of pneumonia in neonates was 9 cases, this was recorded as the highest case rate for other causes in this study.

CONCLUSION

This study aims to determine the factors of neonatal mortality based on maternal factors, baby factors, health service factors and other factors at Panembahan Senopati Hospital, Bantul Regency in 2021-2022. And the research results show that the majority of maternal factors are caused by gestational age, in infant factors by asphyxia, health service factors by place of delivery and for other factors by pneumonia.

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