



The Trend of Delivery Room Utilization and Delivery Profiles in Obstetric Patients at RSU. Premagana 2021-2022

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ABSTRACT

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Healthcare facilities providing Obgyn services are hospitals. The delivery room provides healthcare services for Obgyn patients. The location of this research is at Premagana General Hospital in Gianyar Regency. The problem under investigation is related to the trend of delivery room utilization and childbirth profiles of Obgyn patients at Premagana General Hospital in 2021-2022, as there has been no existing data or research conducted on the prevalence of these cases. The aim of this research is to provide solutions and basic data availability to address the issue of the availability of facilities and infrastructure supporting services. The method used involves secondary data from Obgyn patients' medical records in the delivery room, which is then tabulated, summarized, and quantified based on the types of cases. Results: The trend of delivery room utilization and childbirth profiles of Obgyn patients in 2021 showed that Cesarean Section (CS) was 78,5%, CS with the Woman's Operative Method (CS-WOM) was 9,89%, Normal Delivery was 1.1%, Premature Birth, Vacuum Extraction, Curettage (DC), Hysterectomy, Placental Rest, Preeclampsia was 0,04%, while in 2022, it was as follows: Cesarean Section (CS) 82,5%, CS with Woman's Operative Method (CS-WOM) 6,97%, Normal Delivery 10,5%, Vacuum Extraction, Curettage (DC) 0.09%. The majority were CS followed by CS-WOM, Normal Delivery, and the least common procedures were Premature Birth and Vacuum Extraction. The most common operative procedure CS was performed in obstetric and gynecological cases at Premagana General Hospital, covering 78,5% of cases in 2021 and 82,5% in 2022.

Introduction

In Indonesia, there were 305 maternal deaths per 100,000 live births in 2015. (Dong and Rees 2023; Lely Khulafa'ur Rosidah et al. 2023; Manik

et al. 2021; Nen Sastri 2020) In 2020, this figure dropped to 189 per 100,000 live births (Dong and Rees 2023; Lely Khulafa'ur Rosidah et al. 2023) According to the 2012 SDKI data, MMR was 359

per 100.000 live births. (Rahmah, Amalia, and Mariati 2019)(Lely Khulafa'ur Rosidah et al. 2023) The MMR achievement for Bali Province in 2017 was 68.6 per 100.000 live births, which is already below the MDGs target. However, efforts to further reduce MMR are still being vigorously pursued to further reduce maternal mortality rates in Bali Province.(Lely Khulafa'ur Rosidah et al. 2023; Richter, Carlos, and Beber n.d.)

The World Health Organization (WHO) declared in 2015 that the maternal mortality rate must continue to decrease or be lowered to 105 per 100,000 live births to meet the Sustainable Development Goals (SDGs). This achievement was made possible by upgrades to the reproductive health system, as well as by the efficient allocation of infrastructure, medical personnel, and facilities. In the meantime, inadequate progress has been made in improving community nutrition, providing information and education on family planning and reproductive health, and maintaining clean water and sanitation. Consequently, to accomplish the SDGs and achieve this objective, health professionals and the community must play a positive role in women's reproduction. (Dong and Rees 2023; Lely Khulafa'ur Rosidah et al. 2023)

Comprehensive women's health, including gynecology and obstetrics, is an essential aspect of women's wellbeing. (Ahmad 2023) OB/GYNs, physicians that specialize in providing care related to pregnancy, including attending births (i.e., delivering babies) at hospitals, and the female reproductive system. The practice of obstetrics and gynecology includes surgical expertise due to the nature of the care provided, such as for caesarean sections.(Lely Khulafa'ur Rosidah et al. 2023; States and Accountability 2022)

The science and clinical practice of obstetrics focuses on human reproduction. The specialty promotes the health and well-being of the pregnant woman and her fetus through quality perinatal care. Such care entails recognition and treatment of complications, supervision of labor and delivery, initial care of the newborn, and management of the puerperium. Postpartum care

promotes health and provides family planning options. (Rahmawati et al. 2022)

Obstetrics and gynecology (Obgin) is a branch of medicine that deals with women's reproductive health issues, including childbirth and prenatal care. (Lely Khulafa'ur Rosidah et al. 2023; Sormin and Oktamianti 2022)

One of the healthcare facilities that provides Obgin services is a hospital. The delivery room is one of the facilities provided by hospitals to deliver healthcare services to Obgin patients.

Hospitals are healthcare institutions that provide inpatient, outpatient, and emergency care services. Hospitals must provide medical treatment and health recovery services that prioritize patient interests, are effective, and meet hospital service standards. (Lely Khulafa'ur Rosidah et al. 2023; Sormin and Oktamianti 2022)

Premagana Hospital is a Class D hospital. According to the Ministry of Health Regulation in 1988, Chapter III Article 13, Class D Hospitals must have facilities and capabilities for medical services, at least basic medical services. This was updated by Regulation No. 340 of 2010, Article 18 on the Classification of Public Hospitals. One of the criteria that Class D hospitals must have is: they must have facilities and capabilities for at least 2 (two) basic specialist medical services, including: general medical services, emergency medical services, basic specialist medical services, nursing and midwifery services, clinic support services, and non-clinical support services.

General medical services consist of basic medical services, dental services, and maternal and child health services, including family planning. Emergency medical services must be able to provide emergency care 24 hours a day, 7 days a week, with the ability to conduct initial assessments of emergency cases, perform resuscitation, and stabilization according to standards. Basic specialist medical services include at least 2 (two) of the 4 (four) types of basic specialist services, including: internal medicine, pediatrics, surgery, obstetrics, and gynecology. Specialist medical support services include laboratory and radiology services. Nursing and midwifery services consist of nursing care and midwifery care.

Clinic support services include high-care unit care, blood services, nutrition, pharmacy, instrument sterilization, and medical record keeping. Non-clinical support services include laundry/linen services, catering/kitchen services, facility engineering and maintenance, waste management, storage, ambulance services, communication, morgue facilities, fire prevention, medical gas management, and clean water management. (Kemenkes RI 2010) (Kemenkes RI 2019)

Medical records are a collection of documents containing records and related documents regarding patient identity, examinations, treatments, activities, and other services provided to the patient. The collection of medical history data occurs from the patient's admission to the hospital until discharge, including all actions and treatments provided (Kemenkes RI 2019; Lely Khulafa'ur Rosidah et al. 2023; Rika et al. 2021)

Absolutely, The presence of a medical records unit in a hospital is crucial. This is because the information derived from medical records data is highly useful as a basis for assessing the performance of medical service units. It can be used for performance evaluation and patient satisfaction, which in turn influence decision-making and the establishment of further policies. (Rika et al. 2021) (Susanto 2018)

Additionally, the medical records unit can assist students who are studying or researching the condition of hospital services. A clear picture can be seen from the medical records data. The completeness of medical records filling is crucial as evidence in the event of issues related to medical errors. (Grataridarga et al. 2020)

This research was conducted at Premagana General Hospital in Gianyar Regency. The issue under study pertains to the Trends in the Utilization of Delivery Rooms and the Profile of Deliveries in Obgyn Patients at Premagana General Hospital in the year 2021-2022. The urgency arises because there has been no data available, and no research has been conducted regarding the prevalence of such cases. The specific objective of this research is to provide solutions and basic data availability to address the issue of the availability of supporting facilities and

infrastructure in anticipating related cases. With basic data on the number and types of cases, it becomes possible to anticipate related issues that support service delivery.

In the years 2021-2022, Premagana General Hospital served thousands of Obgyn patients, with a significant number utilizing the delivery room facilities. The high utilization of delivery rooms indicates the importance of these facilities in providing healthcare services to Obgyn patients. Therefore, it is necessary to conduct research to analyze the trends in the utilization of delivery rooms and the profile of deliveries among Obgyn patients at Premagana General Hospital during the stated period.

Based on the background provided, the research problem can be formulated as follows: What are the trends in the utilization of delivery rooms among Obgyn patients at Premagana General Hospital in the years 2021-2022? What are the profiles of deliveries among Obgyn patients at Premagana General Hospital in the years 2021-2022?

The objective of this research is to analyze the trends in the utilization of delivery rooms and the profiles of deliveries among Obgyn patients at Premagana General Hospital in the years 2021-2022 using secondary data. This research is expected to provide the following benefits: Provide information on the trends in the utilization of delivery rooms among Obgyn patients at Premagana General Hospital in the years 2021-2022. Understand the profiles of deliveries among Obgyn patients at Premagana General Hospital in the years 2021-2022. Provide input for Premagana General Hospital to improve healthcare services for Obgyn patients.

Research Methodology

The research method used in this study is descriptive with a cross-sectional design approach. Descriptive means that this research aims to describe or explain the characteristics of a phenomenon without influencing or changing the variables under investigation. The cross-sectional design approach collects data at a specific point in time within a population or sample and is often

used to identify the prevalence of diseases or health conditions at a particular time.

This study was conducted to obtain data from a specific sample representing a particular population by collecting information from medical records of patients undergoing operative procedures for obstetric and gynecological cases in the operating room of Premagana General Hospital, Gianyar Regency, from January 2021 to December 2022. Data were collected from operating room medical records and then analyzed descriptively using tables and narratives.

The cross-sectional approach is a research method conducted by gathering data at a specific point in time within a population or sample. This method is often used in research to identify the prevalence of diseases or health conditions at a particular time.

Results and Discussion

Research findings:

The research data recapitulation is based on medical records of operative procedures for obstetric and gynecological cases in the operating room of Premagana General Hospital from January 2021 to December 2022. The research findings reveal cases of Obgyn patients and trends in the utilization of delivery rooms and profiles of deliveries at Premagana General Hospital.

In 2021, the cases observed include: Cesarean Section (CS), CS with Sterilization(CS-WS), Normal Delivery, Premature Delivery, Vacuum Extraction, Dilatation and Curettage (D&C), Hysterectomy, Placenta Retained, Preeclampsia (Table 1) While in 2022, the observed cases include: Cesarean Section (CS), CS with Sterilization(CS-WS), Normal Delivery, Vacuum Extraction, Dilatation and Curettage (D&C) (Table 2)

Quantitative data are presented in Table 1, illustrating the trends in the utilization of delivery rooms and profiles of deliveries among Obgyn patients at Premagana General Hospital in 2021, and Table 2, illustrating the trends in the utilization of delivery rooms and profiles of deliveries among Obgyn patients at Premagana General Hospital in 2022.

The study findings (Tables 1 and 2) indicate that the trends in the utilization of delivery rooms

and profiles of deliveries among Obgyn patients at Premagana General Hospital from January to December 2021 predominantly involve Cesarean Section (CS), followed by CS with Sterilization(CS-WS), Normal Delivery, Premature Delivery, while procedures such as Vacuum Extraction, Dilatation and Curettage (D&C), Hysterectomy, Retained Placenta, and Preeclampsia are less common.

Similarly, the trends in the utilization of delivery rooms and profiles of deliveries among Obgyn patients at Premagana General Hospital from January to December 2022 primarily involve Cesarean Section (CS), followed by CS with Sterilization(CS-WS), Normal Delivery, and Vacuum Extraction, while Dilatation and Curettage (D&C) is less frequently observed.

The percentage of trends in the utilization of delivery rooms and profiles of deliveries among Obgyn patients at Premagana General Hospital is as follows: Total Cesarean Section (CS) percentage: 1985/2526 (78.5%) in 2021, 1810/2194 (82.5%) in 2022, CS with Sterilization(CS-WS) percentage: 250/2526 (9.89%) in 2021, 153/2194 (6.97%) in 2022, Normal Delivery percentage: 264/2526 (10,5%), IPP 7/2526 (0,28%) in 2021, 214/2194 (9,75%) in 2022, Vacuum Extraction 16/2526 (0,63%) in 2021, 15/2194 (0,68%) in 2022, Lowest percentage for procedures such as Dilatation and Curettage (DC), Hysterectomy, Retained Placenta, Preeclampsia: 1/2526 (0.04%) in 2021, Curettage 2/2194 (0.09%) in 2022

The most common operative procedure, Cesarean Section (CS), was performed in obstetric and gynecological cases at Premagana General Hospital, accounting for 1985/2526 (78.5%) in 2021 and 1810/2194 (82.5%) in 2022.

Table 1. Delivery Room Utilization Trends and Delivery Profiles

Obstetrical Patient in Hospitals 2021													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C-section	147	147	205	190	165	158	142	113	200	181	167	170	1985
C-section + MOW	30	24	18	25	27	19	16	10	25	24	17	15	250
Normal Labor	2	26	26	31	26	24	19	26	20	23	20	21	264
Premature Particulars	1	0	1	1	0	0	2	1	0	0	1	0	7
Vacuum Extraction	1	0	1	1	7	1	1	2	0	1	0	1	16
Curettage(DC)	0	0	1	0	0	0	0	0	0	0	0	0	1
Hysterectomy	0	0	0	0	0	1	0	0	0	0	0	0	1
Rest. Placenta	0	0	0	0	0	0	1	0	0	0	0	0	1
Preeclampsia	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL	181	197	252	248	225	203	182	152	245	229	205	207	2526

Table 2. Trends In Maternity Room Utilization And Delivery Profile

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C-section	169	158	142	150	167	152	152	158	129	172	114	147	1810
C-section + MOW	12	14	11	12	11	13	13	13	11	16	14	13	153
Normal Labour	21	13	20	17	24	12	16	27	20	13	13	18	214
Vacuum Extraction	1	1	4	2	2	3	1	0	1	0	0	0	15
Curettag	0	0	0	0	1	0	1	0	0	0	0	0	2
TOTAL	203	186	177	181	205	180	183	198	161	201	141	178	2194

Discussion

Based on the data from tables 1 and 2 above regarding the trends in delivery room utilization and delivery profiles in Obgin patients at RSU. Premagana in 2021 and 2022, it appears that the dominant procedure performed in the delivery room is Cesarean Section (SC) or delivery by Cesarean operation method. In both years, the number of SC cases is higher than other types of deliveries or obstetric and gynecological procedures. So, SC is the dominant trend in delivery room utilization at RSU. Premagana during the period of 2021-2022.

In terms of deliveries, there is significant use of the SC method, followed by normal deliveries, although there was a decrease from 2021 to 2022. In addition to deliveries, there are several obstetric procedures managed through the delivery room, such as: CS with Sterilization(CS-WS), vacuum extraction, curettage, Imminent Premature Parturition (IPP) for managing threatened premature labor. Similarly, there is a trend of decrease in Normal Delivery from 2021 to 2022.

The research by Wahyuningsih (2006) highlights the low utilization of delivery rooms by pregnant women compared to new antenatal visits at the Polyclinic of Dr. WS Husodo Regional General Hospital in Mojokerto City from 2000 to 2004, averaging 31.38%. Regarding cesarean section (C-section) deliveries, they account for 17.6% of all deliveries in Indonesia, surpassing the WHO standard of 15%. In 2018, Bali ranked second largest in Indonesia for C-section deliveries, with a percentage of 30.2%. This figure nearly doubled compared to the 2013 data, which stood at 17.3% (Putra, Wandia, and Harkitasari, 2021).

The dominant cases through the delivery room based on the data from 2021 and 2022 at RSU. Premagana is SC. The number of SC cases is higher

than other types of deliveries or obstetric procedures in both years. Apart from SC, other common cases also include Normal Delivery. Although the number of normal deliveries decreased from 2021 to 2022, it still remains one of the significant cases in the delivery room. It is important to note that patient preferences, hospital policies, and certain medical factors can influence the dominant cases in the delivery room. Further analysis may be needed to understand the reasons behind this trend and its impact on patients and medical practices at the hospital.

Rare cases through the delivery room include: Hysterectomy, Imminent Premature Parturition (IPP), Vacuum Extraction, Curettage. It is important to understand that the absence or low frequency of certain types of cases can be influenced by many factors, including hospital policies, patient preferences, and medical indications. Further analysis may be needed to further understand the reasons behind the low frequency or absence of these cases.

Conclusion

This conclusion provides a general overview of the trends in delivery room utilization and delivery profiles in Obgin practice at RSU. Premagana during the period of 2021 and 2022.

1. There were fluctuations in cases in the utilization of delivery rooms during the period of 2021 and 2022.
2. SC cases are the most dominant, but experienced a decrease from year to year.
3. Normal Delivery cases experienced a lower decrease but still significant.
4. Additional obstetric procedures, such as: SC+MOW, vacuum, curettage, hysterectomy, and IPP exist, but in lower numbers.
5. The decrease in SC and PN procedures from 2021 to 2022 reflects changes in patient preferences or medical practices.
6. Normal Delivery experienced a lower decrease than SC, indicating that although normal deliveries remain significant, more patients are opting for SC.
7. Some cases such as hysterectomy, Prematurity, curettage, and vacuum use are the rarest occurrences in the delivery room.

Recommendation

Understanding the reasons behind these trends, such as their impact on patients, medical practices, additional data collection, deeper understanding, more specific recommendations, in-depth analysis, and further research are still needed.

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