

ORIGINAL ARTICLE

Postpartum contraceptive use among pregnant women who delivered at Cipto Mangunkusumo General Hospital: A descriptive study

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ABSTRACT

Objectives: The maternal mortality rate in Indonesia is one of the highest in the world at 305 out of 100.000 live birth. One of the best ways to reduce MMR is conception prevention through contraceptive methods. According to 2018 Demographic and Health Survey, Indonesia's Contraceptive Prevalence Rate was as low as 57%, not even reaching the 2015 Millenium Development Goals target of 65%. We conducted a study on postpartum contraceptive use in Dr. Cipto Mangunkusumo National Central General Hospital (RSCM), Jakarta, Indonesia, to see the use of contraception in RSCM so that it can be an example of how contraception is used in RSCM for patients who give birth here.

Materials and Methods: A descriptive study was conducted from all patients giving birth in RSCM from 2016 until 2019, data including patient data, consisting of patient age, parity, the origin of referral, and type of contraception, are input from the medical record

Results: There were 5,596 deliveries, consisting of 3,785 C-sections and 1,811 vaginal deliveries. As many as 5332 (95.3%) of subjects had postpartum contraception, 725 (13.67%) of which received tubectomy, and most of which received long-term contraceptive methods (IUD 4414 (82.78%) and implant 44 (0.82%)). As many as 1.065 subjects were more than 35 years of age, 6.2% of which did not use any postpartum contraception. As many as 984 subjects were RSCM bookcases, 6.9% of which did not use any postpartum contraception.

Conclusion: Most patients giving birth in RSCM had postpartum contraception, especially permanent contraception and long-term contraception. The contraception profile in RSCM alone can neither describe nor represent the condition and distribution of contraceptive methods in Indonesia because RSCM is a national referral and medical education center whose cases are relatively more complex.

Keywords: Contraception; Post Partum; RSCM; Maternal mortality; maternal health

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ABSTRAK

Tujuan: Angka Kematian Ibu (AKI) di Indonesia sebesar 305 kematian per 100.000 kelahiran hidup sedangkan target Indonesia menurut Sustainable Development Goals (SDGs) adalah 70 kematian per 100.000 kelahiran hidup pada tahun 2030. Salah satu cara terbaik untuk mengurangi kematian ibu adalah mencegah kehamilan melalui metode kontrasepsi. Menurut Survei Demografi dan Kesehatan 2018, Angka Prevalensi Kontrasepsi di Indonesia sebesar 57%, belum mencapai target Millenium Development Goals (MDGs) 2015 sebesar 65%. Penelitian ini dilakukan untuk mengetahui penggunaan kontrasepsi pascasalin di Rumah Sakit Umum Pusat Nasional Dr. Cipto Mangunkusumo (RSCM) sehingga dapat menjadi role model bagi pelayanan kesehatan reproduksi di Indonesia.

Bahan dan Metode: Penelitian deskriptif dilakukan dengan menggunakan data yang diambil dari rekam medis seluruh pasien yang bersalin di RSCM dari tahun 2016 sampai dengan tahun 2019.

Hasil: Terdapat 5.596 persalinan, yang terdiri dari 3.785 Sectio Caesaria (SC) dan 1.811 persalinan pervaginam. Sebanyak 5.332 (95,3%) subjek menggunakan kontrasepsi pascasalin, sebagian besar menggunakan IUD 4.414 (82,78%), tubektomi 725 (13,67%), dan implant 44 (0,82%). Sebanyak 1.065 subjek berusia lebih dari 35 tahun, 6,2% di antaranya tidak menggunakan kontrasepsi postpartum. Sebanyak 984 subjek terdaftar sebagai pasien RSCM, 6,9% di antaranya tidak menggunakan kontrasepsi postpartum.

Simpulan: Sebagian besar pasien bersalin di RSCM menggunakan kontrasepsi postpartum, terutama kontrasepsi permanen dan kontrasepsi jangka panjang. Gambaran kontrasepsi di RSCM ini tidak dapat menggambarkan atau merepresentasikan kondisi dan distribusi metode kontrasepsi di Indonesia karena RSCM merupakan pusat rujukan yang kasusnya relatif lebih kompleks.

Kata kunci: Kontrasepsi; pascasalin; RSCM; kematian ibu; kesehatan ibu



INTRODUCTION

Maternal mortality rate (MMR) is an Indonesia of the impact of various efforts aimed at improving the degree of maternal health. Mother's death will not occur without a pregnancy.¹ Based on the 2015 Intercensal Population Indonesia (SUPAS), Indonesia's MMR is at 305 per 100,000 live births.² The SDGs (Sustainable Development Goals) target for Indonesia is to reduce maternal mortality to below 70 per 100,000 live births by 2030.^{3,4}

In 2013 around 38% of women of childbearing age did not use birth control. So the chance of getting pregnant and dying during childbirth increases. This is because the coverage of Contraceptive Prevalence Rate (CPR) in 2012 was only 57.9% so that special attention was needed to reach 65% of the MDGs in 2015. The population growth and marriage rates in adolescents that continue to increase affect the still high total Fertility Rate (TFR) in Indonesia. TFR was stagnant at 2.6 in 2012. Family planning services are still dominated by short-term contraceptive methods (pills and injections).^{1,3}

Prevention of maternal death can be divided into three, namely: (1) Primary prevention by delaying or not getting pregnant, (2) Secondary prevention by early detection and prevention of complications, (3) Prevention of tertiary by preventing death in pregnancy or childbirth with complications. Family Planning is an effort to regulate the birth of children, the ideal distance and age for giving birth, regulating pregnancy, through promotion, protection, and assistance following reproductive rights to realize quality family.^{5,6}

To provide the best service as a national referral hospital which must also be a reference for maternal health services in Indonesia, Cipto Mangunkusumo General Hospital (RSCM) participated in research looking at the profile of postpartum contraceptive use. This research is expected to be used as a basis for standardization and models of antenatal care services in Indonesia.

MATERIALS AND METHODS

A descriptive study was conducted using secondary data retrieved from medical records of all patients giving birth in RSCM from 2016 until 2019. Patients with abortions or with incomplete medical records were excluded from the study. Patient data, consisting of patient age, parity, the origin of referral, and type of contraception, are input from the medical record to Microsoft Excel for further editing and coding of the

data. Data analysis was performed with SPSS 20.0 for Windows. This study was approved by the Ethics and Medical Research Committee of the Faculty of Medicine, Universitas Indonesia, Indonesia by Number: KET-573/UN2.F1/ETIK/PPM.00.02/2020. The implementation of this research is subject to the principles of the Declaration of Helsinki, the Guidelines for Good Clinical Practice of the ICH Tripartite Guidelines, and the regulations that apply in Indonesia.

RESULTS AND DISCUSSION

From 2016 until 2019, as many as 5.596 deliveries took place at the RSCM, consisting of 1.811 (32.4%) patients who had vaginal deliveries and 3.785 (67.6%) patients who delivered by cesarean section. The median age of patients was 29 years (13-48 years) with 1.065 (19%) patients > 35 years old. The median age of patients undergoing vaginal delivery was 27 years (14-48 years), while the median age of patients undergoing cesarean section was 30 years (13-48 years). A total of 172 (3.0%) patients had a parity of more than three. A total of 2.256 (40.3%) patients were non-referral patients, while 3.340 (59.7%) patients were referral patients. Of the 2.256 non-referral patients, 984 (43.6%) patients were classified as bookcase patients, ie patients who had undergone antenatal care at least three times in the RSCM obstetrics clinic.

Table 1. Patients characteristics

	Vaginal Delivery	Caesarean Section
Age	27 y.o (14 – 48 y.o)	30 y.o (13 – 48 y.o)
≤ 35 y.o	1546 (85.4%)	2985 (78.9%)
> 35 y.o	265 (14.6%)	800 (21.1%)
Parity		
≤ 3	1,752 (96.7%)	3,672 (97%)
> 3	59 (3.3%)	113 (3%)
Booked or Referral		
Bookcase	230 (12.7%)	754 (20%)
Non-bookcase		
– Referral	1056 (58.3%)	2284 (60.3%)
– Non-referral	525 (29%)	747 (19.7%)

Of the 5,596 patients who delivered at Cipto Mangunkusumo General Hospital in 2016-2019, 5,332 patients (95.3%) used postpartum contraception. Patients who did not use postpartum contraception (264 patients, 4.7%) due to various reasons, such as refusing the use of contraception (143 patients, 54.17%), had not chosen the contraceptive method (39 patients, 14.77%), undergoing hysterectomy postpartum (47 patients, 17.7%), planned IUD interval installation (80 patients, 30.3%), history of postpartum hemorrhage, having a deceased husband, and catheter condoms attached (each

reason 1 patient, 0.38%). Postpartum contraceptive programs, in particular, were not attended by 66 (6.2%) from 1065 patients aged > 35 years, 5 (2.9%) from 172 patients with parity more than three, and 68 (6.9%) from 984 bookcase patients.

The method of postpartum contraception that many patients choose in RSCM is an IUD. IUD were mostly chosen by patients undergoing vaginal delivery (1,611 patients, 93.4%) or cesarean section (2,806 patients, 77.8%). A total of 725 patients (13.67%) underwent tubectomy as a method of contraception. Tubectomy was proportionately more favored by patients undergoing cesarean section (701 patients, 19.4%). Only 24 patients (1.4%) who underwent vaginal delivery chose tubectomy as their method of contraception. Another long-term contraceptive method used by patients in the RSCM is implants 44 patients (0.82%). Other postpartum contraceptive methods are chosen by study respondents included DMPA (94 patients, 1.8%) and combined birth control pills (5 patients, 0.1%).

This study found several things related to the use of postpartum contraception in patients who delivered at the Cipto Mangunkusumo General Hospital in 2016-2019. In general, the percentage of postpartum contraception in RSCM patients is relatively high. The percentage of postpartum contraception in RSCM reached 95.3%, relatively higher, compared to national data according to 2017 Indonesian Demographic and Health Survey (IDHS)⁷; 46.0% of all women; 63.6% of all women who had already married or when compared to various developing countries in South and Southeast Asia, such as India⁸ (2015-2016; 53.5% of married women), Pakistan⁹ (2017-2018; 33.6% of married women), Laos¹⁰ (2017; 53.6% of all women; 54.1% of married women/in relationships), Philippines¹¹ (2017;

33.6% of all women; 54.3% of married women), and Myanmar¹² (2015-2016; 31.6% of all women; 52.2% of married women). However, several factors, such as the intensity of education and the role of the RSCM as a tertiary referral hospital, many complex obstetric cases, cause the findings of this study cannot be a general description of conditions in Indonesia.

This study found that most of the patients who gave birth at RSCM chose the long-term contraceptive method, either tubectomy (13.67%), IUD (82.78%), or implants (0.82%). Tubectomy was proportionately more favored by patients undergoing cesarean section compared with patients undergoing vaginal delivery. This is influenced by the policy of the Indonesian Health Social Security Organizing Agency (BPJS Kesehatan) which covers the costs of tubectomy performed jointly with cesarean section but does not cover the cost of elective tubectomy. The high IUD preference among study respondents is not similar to the national preference according to the 2017 IDHS,⁷ where the IUD is generally the third-most preferred contraceptive method (7.6%) after DMPA (45.4%) and the contraceptive pill (18.9%). The 2017 IDHS also found that the preference for implants (7.4%) was slightly less than the IUD, while the preference for tubectomy (6.1%) was less than the preference for an implant and interrupted intercourse (6.7%). Compared to five Southeast Asian and South Asian countries, besides Indonesia, a preference for DMPA was also found in Myanmar¹² (52.8%). Preference for contraceptive pills was found in Laos¹⁰ (50.5%) and the Philippines¹¹ (37.8%). Preference for tubectomy was found in India⁸ (67.3%) and Pakistan⁹ (26.6%), although the preference for tubectomy in Pakistan was as great as the preference for condoms. Tubectomy is also one of three methods of contraception that are widely used in

Table 2. Contraceptive Use

	Vaginal Delivery	Caesarean Section	Total
Family Planning	1725 (95.3%)	3607 (95.3%)	5332(95.3%)
Pills	4 (0.2%)	1 (0.03%)	5 (0.09%)
DMPA	61 (3.5%)	33 (0.9%)	94(1.76%)
Implant	25 (1.5%)	19 (0.5%)	44(0.82%)
IUD	1611 (93.4%)	2806 (77.8%)	4414(82.78%)
Tubectomy	24 (1.4%)	701 (19.4%)	725(13.67%)
Hysterectomy	0	47 (1.37%)	47(0.88%)
No Family Planning	86 (4.7%)	178 (4.7%)	264(4.7%)
Refused			
Not decided yet	44 (51.1%)	99 (55.6%)	143(54.17%)
Planned to use	8 (9.3%)	31 (17.4%)	39 (14.77%)
interval IUD	32 (37.2%)	48 (27%)	80 (30.3%)
Deceased husband	1(1.2%)	0	1(0.38%)
Condom	1(1.2%)	0	1(0.38%)
Total	1811	3785	5.596

Laos¹⁰ (8.1%), the Philippines¹¹ (14.3%), and Myanmar¹² (9.2%). IUDs and implants, besides not being widely used in five Asian countries when compared to tubectomy, are also not the top three contraceptive methods that are widely chosen in these countries. Based on data by the United Nations, the worldwide prevalence of tubectomy and IUD use has been decreasing since 1995, however IUD use was found to be most prevalent in the Democratic People's Republic of Korea (46.9%), Uzbekistan (36.9%), and Turkmenistan (30.6%).

Postpartum contraceptive programs, in particular, were not attended by 6.2% of patients aged > 35 years. The percentage of non-participation of contraceptive programs among respondents aged > 35 years in this study was smaller, compared to the findings of the 2017 IDHS9 (41.4%) or findings in various Asian countries such as India⁸ (35.5%), Pakistan⁹ (59.1%), Laos¹⁰ (45.2%), the Philippines¹¹ (55.7%), and Myanmar¹² (65.3%). The percentage of patients with parity of more than three who did not use contraception in this study was 2.9%. This finding is relatively low when compared with existing studies. Channon¹³ found in her study in five South Asian countries that although women with high parity had higher rates of contraceptive use compared to women with low parity, the range of percentage of women with parity of more than three who did not use contraception in India (29-56%), Pakistan (49-76%), Bangladesh (36-47%), Nepal (35-60%), and Afghanistan (68-73%) are still relatively high.

On the other hand, this study also found 6.9% of bookcase patients did not use postpartum contraception. This needs to be an evaluation for the RSCM obstetric clinic, bearing in mind that bookcase patients should have received contraceptive education and counseling during antenatal care at the polyclinic. Hernandez et al. found that patients who received antenatal contraception counseling had a tendency to use postpartum contraception effectively (adjusted OR 1.47; p-value 0.01; 95% CI 1.10-1.96), regardless of the patient had used contraception before pregnancy or not. The evaluation can be done not only related to the practice of education in the clinic but can also include the evaluation of various other factors that can have an impact on contraceptive use, such as stress in pregnancy.¹⁴

The highest use of family planning in this study was IUD in postpartum. One of the keys to the use of an IUD is counseling regarding immediate postpartum contraceptive use. According to a study in Thailand, counseling at the time of delivery can increase the

acceptance of the use of the IUD immediately after delivery compared to conventional postpartum contraceptives (4-6 weeks).¹⁵

CONCLUSION

Most patients giving birth in RSCM had postpartum contraception, especially permanent contraception and long-term contraception. However, education on contraceptive methods through counseling has yet to be improved, especially for vulnerable patients; i.e. patients above 35-year-old, bookcases with complicated obstetric/medical problems, and high parity women. Contraception profile in RSCM alone can neither describe nor represent the condition and distribution of contraceptive methods in Indonesia because RSCM is national referral and medical education center whose cases are relatively more complex.

CONFLICT OF INTEREST

All authors have no conflict of interest.

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