



## The effect of the ERACS method on early mobilization of post sectio caesaria patients at Universitas Gadjah Mada Academic Hospital in 2023

\*Dewi Krismayanti, Anjarsari Haspitaningrum, and Esti Utami Risanto

<sup>1</sup>Universitas Gadjah Mada Academic Hospital

\*Correspondence: [dewikrismayanti@ugm.ac.id](mailto:dewikrismayanti@ugm.ac.id)

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### Abstract

**Background:** ERACS (Enhanced Recovery After Caesarian Surgery) is a fast program recovery after a Caesarean section in the form of a series of care starting from preoperative preparation, intraoperative and post-operative care until the patient is discharged. In Indonesia itself, the implementation of the ERACS protocol began to be implemented in 2019. UGM Academic Hospital, the ERACS method is still a new service from the Maternal Perinatal Installation and will start running in November 2022.

**Objective:** This research aims to determine the difference in maternal mobilization time post-Sectio Caesaria with the ERACS method and mobilization of mothers post non-eracs SC at UGM Academic Hospital in 2023.

**Method:** This research is quantitative research using a quasi-experimental method with a nonequivalent posttest control group design. The research was conducted at the UGM Academic Hospital in April - September 2023. The sampling technique was accidental sampling.

**Result:** The research results showed that the average mobilization of post-Sc patients using the ERACS method was 13.1 hours and the average mobilization of non-ERACS post-Sc patients was 33.7 hours. From the results of the analysis of 54 respondents using the Independent Sample Test, it shows a value of 0.000. So  $H_0$  is rejected and  $H_a$  is accepted.

**Conclusion:** there is an effect of giving the ERACS method by accelerating the mobilization of women giving birth post-Sectio Caesaria.

**Keywords:** Early Mobilization, ERACS, Maternity, Mobilization, Sectio Caesaria,

## 1. INTRODUCTION

Childbirth is the process of expelling the products of conception at term (37-42 weeks). Childbirth can be carried out naturally, namely vaginally, or surgically, namely through caesarean delivery or sectio caesarea (SC) (Cunningham et al., 2018)<sup>1</sup>. After the delivery procedure, not a few mothers complain about their condition. Starting from post-operative pain, difficulty mobilizing and meeting personal needs, as well as the mother's demands in caring for her baby.

According to the World Health Organization (WHO)<sup>2</sup>, in 2020 the number of births using the SC method increased throughout the world and exceeded the recommended range of 10%-15%. Latin America and the Caribbean region contributed the highest number of births by caesarean section, namely 40.5%, followed by Europe 25%, Asia 19.2% and Africa 7.3%. According to statistics and 3,509 cases of SC, indications for SC include fetal pelvic disproportion 21%, fetal distress 14%, placenta previa 11%, previous CS 11%, fetal abnormalities 10%, pre-eclampsia and hypertension 7%. (World Health Organization, 2020)<sup>3</sup>. In Indonesia, SC deliveries are 17.6%, the highest in the DKI Jakarta area at 31.3% and the lowest in Papua at 6.7% (RI Ministry of Health, 2020)<sup>4</sup>. Meanwhile, in the Special Region of Yogyakarta, the percentage of caesarean section deliveries is 23.05% of total births (Risksedas DIY, 2018)<sup>5</sup>.

In Indonesia itself, the implementation of the ERACS protocol began to be implemented in several hospitals around 2019, several hospitals have implemented this method as an option. In several journals related to the application of the ERACS protocol, there are still differences in the results obtained and the need to study the factors that influence differences in results in these studies and sources related to this protocol are still limited. At the UGM Academic Hospital in 2022, of the total number of deliveries of 188 deliveries, 89 of them (47%) were SC deliveries, both elective and emergency. Then the ERACS method itself at the UGM Academic Hospital will only start to be implemented in November 2022 as a new service at the Maternal Perinatal Installation (IMP), with a total of 2 patients until December 2022. From data surgical patient at

UGM Academic Hospital 82 patient or 92 % were able to mobilize after 24 hours and 8 % patient were able to mobilize before 24 hours after giving birth.

## 2. MATERIALS AND METHODS

This research uses primary data and secondary data. Primary data by direct observation and secondary data from patient medical records (Notoatmodjo, 2012)<sup>14</sup>. This research design used a quasi-experimental design with pretest and post test only control group design. The samples in this research were sample A was given treatment X and sample B which was not given treatment. Then it is observed and repeated.

## 3. RESULTS

Data collection was carried out from June to September 2023 at UGM Academic Hospital. Of the 54 respondents in this research, it shows that of the 54 respondents who included the group of women, there were aged under 20 years (1.9%), 20-35 years ( 61.1 %) and the remaining over 35 years ( 37% ).

Most of the mothers giving birth were multigravida, namely 77.8% and the remaining 22.2% were primigravida. From the data, the majority of birthing mothers have a Bachelor's degree, namely 42.6% and 33.3% of the pregnant women have a D3 education, the remaining 24.1% of pregnant women have a high school education.

With the average mobilization of women giving birth post SC Eracs having an average of 13.1 hours after surgery, with the fastest mobilization being 6 hours and the longest being 36 hours after surgery. Meanwhile, the average mobilization of women giving birth post non-eracs SC is 33.7 hours after surgery, with the fastest mobilization being 24 hours and the longest being 36 hours after surgery. Then the length of care for mothers in labor with Eracs for 24 hours was 29.6%. 18.5% is the length of care for women giving birth during Eracs 36 hours and the remaining 1.9% is the length of care for women giving birth Eracs more than 48 hours. Meanwhile, the length of care for mothers giving birth non-eracs for 36 hours is 5.6%, the length of care for 48 hours is 33.3% and the remaining time is more than 48 hours, namely 11.1%.

**Table 1.** Independent Sample Test of The Effect of The Eracs Method On Early Mobilization of Post Sectio Caesaria Patient at UGM Academic Hospital in 2023.

		Levene's Test for Equality of variances					t - test for Equality of Means	
		F	Sig.	t	df	Sig. (2_tailed)		
Mobilisasi	Equal Variances Assumed	3.220	0.079	-5.354	52	.000		
	Equal Variances Not Assumed			-5.354	47.793	.000		

From the results of data processing analysis of 54 maternal respondents at RSA UGM regarding the effect of giving the ERACS method to post-operative patients using the Independent Sample Test, it shows a value of 0.000. Based on the "Paired Samples Test" output table, it is known that the Sig (2-tailed) value is 0.000 < 0.05, so Ho is rejected and Ha is accepted. So it can be concluded that there is a difference in the implementation of accelerated mobilization between the group that was given the Eracs method and the group that received the conventional / non-eracs method (treatment), which means that there was an effect of giving the Eracs method to early mobilization for post-SC birthing mothers. Table 1 shows that duration of mobilization patient with eracs method has a significant influence of early mobilization of patients post sectio cesarian.

**4. DISCUSSION**

The results of this research are in accordance with the opinion of Wahyu Pujiwati et al7, in their research entitled The Effect of the Eracs Method on the Mobilization of Post-SC Patients at the Kartini General Hospital, Jakarta in 2022. With the results of the Kolmogorov normality test, the results of the duration of mobilization for the Eracs method were obtained with a significant value (Sig ) 0.000 and the Non Eracs method has a Significant value (Sig) = 0.004, or < 0.05 so that the research data is not normally distributed, then the researcher carried out a non-parametric test using Mann-Whitney, with the result p value = 0.000, or < 0.05, this means that there is a difference between the length of mobilization in the SC Eracs and Non Eracs methods. This is also in line with the research of Warmiyati (2022)8 in her research entitled The Effect of Sectio Caesarea Eracs Method on the Acceleration of Mobilization of Mothers Giving Birth at Hermina

Daan Mogot Hospital in 2022, stating that ERACS is a surgical technique which was developed for cesarean delivery where conditions can be optimized before, during and after surgery to achieve a faster recovery process after undergoing surgery. The results of the analysis of differences in mobilization between women giving birth after conventional SC and post SC ERACS show that the average mobilization for women giving birth after conventional SC is 20.41 after surgery, while for mothers giving birth post SC ERACS the average mobilization is 10.00. after operation. There was 10.41 hours, where mobilization for mothers giving birth post SC ERACS was faster than mobilization for mothers giving birth post conventional SC.

**5. CONCLUSIONS**

There is a difference between the group given the ERACS method and the non-ERACS (treatment) group, which means that there is an effect of giving the ERACS method in early mobilization of postpartum mothers. Apart from that, the Eracs method in Post SC patients is useful for patient mobilization which can shorten the patient length of stay in hospital so that it can reduce hospital costs. In this study, there was a significant influence between the ERACS method on the acceleration of post-operative patient mobilization with a p-value = 0.000.

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