

## Research Article

## Profile of Maternal Referral Cases

*Profil Rujukan Kasus Ibu*

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## Abstract

**Objective:** To explore the demography of maternal referral cases in Dr. Cipto Mangunkusumo Hospital (RSCM) along with the accuracy of referral. We also aim to evaluate the types of referral, origin of referral, referring healthcare facility and quality of referring healthcare facility.

**Method:** The design of this study was a cross sectional design which described the accuracy of obstetrics referred cases in Emergency Unit Dr. Cipto Mangunkusumo Hospital from 2013 to 2014.

**Result:** The total referred obstetric cases in 2013 was 1,645 patients. It was consisted of 1,307 appropriate (79.5%) and 338 inappropriate (20.5%) referred cases. Primary healthcare and general hospital were the most often referring cases to RSCM during two consecutive years. The top three cases referred to RSCM in both 2013 and 2014 were preterm premature rupture of membrane (PPROM), continued by severe preeclampsia and preterm labor.

**Conclusion:** The number of referral cases in Indonesia is considered high, particularly in RSCM as the tertiary healthcare facility. There are still a high number of inappropriate referrals originating from primary healthcare facilities, pointing to the fact that the referral system is not running according to design or plan. To improve the quality of referral system, proper monitoring and evaluation of referral should be performed by local health department.

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**Keywords:** maternal case, referral system

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## Abstrak

**Tujuan:** Mengetahui gambaran rujukan kasus ibu yang terjadi di RSCM beserta ketepatan pelaksanaan rujukan. Selain itu dapat ditemukan sebaran jenis dan daerah asal rujukan kasus, fasilitas pelayanan kesehatan perujuk, serta kualitas fasilitas pelayanan kesehatan dalam merujuk kasus.

**Metode:** Studi kuantitatif desain potong lintang menggambarkan ketepatan kasus rujukan ibu ke IGD RSCM pada tahun 2013-2014.

**Hasil:** Rujukan kasus Ibu 2013 sebanyak 1.645 pasien, 20,5% tidak tepat rujuk. Asal fasilitas pelayanan kesehatan perujuk terbanyak adalah Pusat Kesehatan Masyarakat (Puskesmas) dan RS Umum Daerah (RSUD). Jenis kasus yang dirujuk terbanyak adalah ketuban pecah dini, preeklamsia berat dan persalinan preterm.

**Kesimpulan:** Jumlah kasus rujukan di Indonesia masih tinggi, khususnya di RSCM sebagai fasilitas kesehatan tersier. Masih banyak rujukan yang tidak tepat berasal dari pelayanan kesehatan primer. Hal ini menandakan bahwa rencana sistem rujukan yang belum tepat. Untuk meningkatkan kualitas sistem rujukan, perlu dilakukan monitoring dan evaluasi oleh dinas kesehatan setempat.

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**Kata kunci:** kasus maternal, sistem rujukan

## INTRODUCTION

Hospital is an institution that provides curative and also preventive health services. A hospital must be prepared for the necessary infrastructure covering all requirements of medical personnel and adequate funding to meet the public needs.<sup>1,2</sup>

The prevailing referral system in Indonesia is based on health ministry policy in 1978. Unfortunately, the management system has not been appropriately applied in this situation such as the mess of referral system. It is due to the failure of policy maker to set the referral system and guideline. Thus, we need a new innovation to solve this problem.<sup>3</sup>

The referral system will be effectively worked through the close relationship between health care services and the society so that people can reach the health services easily. It will create the cost effectiveness in approaching the primary and secondary health services.<sup>4,5</sup> A good and effective referral system assures the achievement of optimum performance.<sup>6</sup> In fact, there are a lot of complaints such as inappropriately and always refer also no return referral to primary health care. These cause the overload of patients in referral hospital so that the services become ineffective and inefficient.<sup>7,8</sup>

The recording, reporting and giving feedback system are not well coordinated in a hospital, even

in Dr. Cipto Mangunkusumo hospital (RSCM) as the center of referral. A study conducted in RSCM about the emergency referral system revealed that there were improper referral steps showed by the high rate of referral coming from primary health care (38%).<sup>9</sup> Several problems included the incomplete data of the referral notes and no early assessment of the cases.<sup>10,11</sup>

In the era of universal health coverage, it is mandatory to carry out appraisals of the referral program based on a quantitative approach. This aims to determine the events occurred in health facilities at the lower level and the condition of patients referred. This approach can also give the suggestion to determine the health policy in multilevel referral system for the tertiary hospital. The system can reduce the number and kind of referral cases in RSCM as tertiary hospital.<sup>12</sup>

## METHODS

This descriptive quantitative study used the cross-sectional design. The study was conducted toward maternal referral cases patients who met the inclusion and exclusion criteria in Dr. Cipto Mangunkusumo Hospital from 2013 to 2014.

Data collection was carried out between January and July 2015 using total sampling method so that all eligible samples were included in the data analysis. The variables consisted of the accuracy of referral, type of referral, origin of referral and the referring healthcare facility. Determination of referral accuracy was based on type of referral case, level of referral, regionalization of referral and competence of referring healthcare facility. We inputted all data to be analyzed in Microsoft Excel. We analyzed the descriptive data in categorically and the result was presented in frequency and percentage on either table or graphic.

## RESULTS

The study showed that there were an increase number of improper referrals as many as 289 cases in 2014. The percentage rose from 20.5% in 2013 to 27.0% in 2014. The top three cases referred to RSCM in both 2013 and 2014 were preterm premature rupture of membrane (PPROM), continued by severe preeclampsia and preterm labor. Apart from that, the number of cases was also significantly increased from 632 cases in 2013 to 1,119 cases in 2014 (Table 1). Table 2 compared the ap-

propriate and inappropriate of maternal referral cases in RSCM during 2013-2014.

**Table 1.** The Maternal Referral Cases in 2013 - 2014

Year	Most frequent Cases (n(%))		
	PPROM	Severe Preeclampsia	Preterm
2013	240 (14.6)	227 (13.8)	165 (10.1)
2014	479 (20.3)	393 (16.7)	247 (10.5)

**Table 2.** Comparison of Appropriate and Inappropriate Maternal Referral Cases in RSCM in 2013-2014.

Year (Total)	Total Maternal Referral Cases		Total
	Appropriate	Inappropriate	
2013 (1645)	1307 (79.5%)	338 (20.5%)	1645
2014 (2357)	1730 (73%)	627 (27%)	2537

Some health care facilities referred the maternal cases to RSCM including: general hospital, primary health care, clinic, midwives and also private hospital. Primary health care and general hospital were the most often referring cases to RSCM during two consecutive years. The data were similar in each region. In 2013, the regions which referred the most number of cases were as follows: East Jakarta (500 cases), Central Jakarta (336 cases) and unnamed regions (332 cases). Meanwhile, outside Java only ever referred for 1 case in 2013. In 2014, Central Jakarta (742 cases) became the most often referring cases, followed by East Jakarta (573 cases) and Bogor Tangerang Bekasi (258 cases). Also, the least frequently referring cases in 2014 came from outside Java only for 16 cases.

**Table 3.** Healthcare Facilities Presenting most Referral Cases in 2013-2014

Year	Referring Healthcare Facility	Total (n(%))
2013	Primary healthcare	736 (44.7)
	General hospital	383 (23.3)
2014	Primary healthcare	684 (29.0)
	General hospital	399 (16.9)

## DISCUSSION

In 2014, maternity cases referred to RSCM increased to 712 cases (43.0%) compared with 2013.

The increase of it was influenced by the legalization of uni-versal health coverage in Indonesia which managed by Badan Pengelola Jaminan Sosial (BPJS) from January 1<sup>st</sup> 2014. Besides, it was caused by the inappropriate national referral system so that there was an accumulation of maternal cases in RSCM. According to Murray, the proper pattern of referral had to follow the pyramidal format of health services, starting from the lowest to the highest level.

A referral case is correct if it meets the criteria of case type, stage of case, regionalization of case and the competence level of healthcare facility. Unless it meets the criteria mentioned, the referral should be deemed inappropriately. In 2014, the number of inappropriate cases rose from 20.5% to 27.0%. The particular problem was probably caused by the fact that the bypassed referral of the secondary healthcare facility directs to RSCM as a result of geographical consideration. Apart from that, the fact that the secondary healthcare facility was not being manned by the required specialist doctor on site and also inadequate facilities that could handle the emergency situation.

### CONCLUSION

The number of referral cases in Indonesia are considered high, particularly in RSCM as the tertiary healthcare facility. There are still a high number of inappropriate referrals originating from primary healthcare facilities, pointing to the fact that the referral system is not running according to design or plan. The low quality of referral is influenced by several factors such as the absence of referral standard operating procedure which complies with the national referral guidance in 2012, the absence of referral proper recording, limited cooperation among several referral stages, inadequate referral transportation means, the absence of specialist doctors on site and unavailable proper emergency operation theatre. Based on interviewing with patients, they expressed disappointment with the quality of service in the referring healthcare facilities because of time consuming process, unavailable transportation, the absence of specialist doctors on site and other unclear reasons of referrals.

### RECOMMENDATION

To improve the quality of referrals, each primary health care must have a clear and detailed referral standard operating procedure on the management of referral and return referral. Proper monitoring and evaluation of referral should be performed by local health department.

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