



## Analysis of filling completion and facilities of medical records at Stella Maris Hospital in Makassar, Indonesia<sup>☆</sup>



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### KEYWORDS

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Facilities and  
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### Abstract

**Objective:** This study aimed to find out the complete picture of medical record filling and perceptions of health executors (doctors) on facilities in inpatients at Stella Maris Hospital in Makassar.

**Method:** The research method is a descriptive observational quantitative method which by observing, distributing questionnaires, and interviewing respondents. The sample consisted of 52 doctors who worked in Stella Hospital and were categorized by age, sex, education, and years of service.

**Results:** The results of the study showed that as many as 53 medical record files were not filled in completely (57%) compared to the complete filled file with 39 medical record files (43%). Besides, respondents who stated that the existing facilities and infrastructure were good as many as 24 respondents (46.2%) while the respondents stated that the existing facilities were not as good as 28 respondents (53.8%).

**Conclusion:** The completeness of filling in medical records and perceptions of the implementation of the availability of facilities in Stella Maris Hospital are still deficient.

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### Introduction

Medical record is a collection of written information about patient health and care that is vital for now and in the future of a patient.<sup>1</sup> Medical records are also used for management planning and health services for health research and health service production statistics.<sup>2,3</sup> Through a good Medical Record Management system, appropriate information will be obtained that can be a supporting decision in

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improving health services. Good health services are influenced by good medical records, while incomplete medical records reflect poor health services.<sup>2,4</sup> Therefore, the completeness of filling medical records needs attention and should be implemented.<sup>5</sup>

The quality of medical records is not only influenced by indicators of completeness, accuracy, timeliness, and fulfillment of legal aspects of medical records but also human resource factors, facilities and infrastructure, methods and financing factors.<sup>6</sup> The results of the research conducted by Arman (2016)<sup>7</sup> at the Regional General Hospital of Makassar City indicate that the existing HR and facilities are still relatively poor, so the completeness of filling in the medical record file is still very poor (46.7%). From the results of the research described above, the availability of quality facilities needs to be considered because they can affect the completeness of filling in the medical records of the patients concerned.

In this case, the facilities are the raw materials needed usually consisting of semi-finished materials (raw material) and finished materials in the initial operation to produce goods or services.<sup>8</sup> In this study, matters related to place or equipment that the hospital provide to assist doctors in completing the medical record file at the hospital.

Stella Maris Makassar Hospital is a hospital that has been operating for more than 75 years. Based on these facts, the quality of hospital health services should be highly qualified, especially in filling out medical records. However, from the data obtained in the Stella Maris Hospital Medical Record Installation, the number of completeness of filling in medical records in 2015 was only 57%, and in 2016 amounted to 58.8%. This shows that the level of completeness of filling in the medical record file at the Hospital is still low. Therefore, this study will analyze the completeness of medical records and perceptions of health workers on the quality of facilities that exist at Stella Maris Hospital in Makassar, to know the factors that influence the completeness of materials in filling out medical records. Adequate facilities related to this are the amount of stock or damage of equipment and materials needed to support medical record activities.

## Method

### Location and design of the study

This research is located in the Medical Record Installation and Inpatient Installation Stella Maris Hospital, Makassar City, South Sulawesi Province. When the study was conducted in April–May of 2017.

### Population and sample

The sample consisted of 52 doctors at the inpatient installation at Stella's Hospital. The sample is then divided into several categories, which are based on age, sex, work period and type of education.

## Method of collecting data

Method of data collection used quantitative methods that were descriptive observational conducted by observing, distributing questionnaires and interviews with samples. This data was collected by distributing 52 questionnaires to respondents (doctors) in charge of providing services in the inpatient unit of Stella Maris Hospital. In addition, there were data obtained from the documentation by the Stella Maris Hospital.

## Data analysis

The data analysis method used in this study was a univariate analysis which aimed to explain or describe the characteristics of the research variable. Univariate analysis was performed on variables from the results of the study by using frequency distribution tables to produce a percentage of the research variables. The variable in this study was the analysis of existing data completeness and the perception of the sample on the quality of medical record materials in the Stella Maris Hospital.

## Results

### Characteristics of respondents

Based on [Table 1](#), the respondents are 52 doctors who are currently working at inpatient installation unit at Stella Maris Hospital. Then, they were divided based on age, sex, education, and years of service. Respondents were from 25 to 65 years old, with the highest number of respondents was 36–45 years old (36.5%). Also, it is known that the highest number of respondents is male with the number 27 people (51.9%), while the number of female respondents is 25 people (48.1%). In addition, based on education level, 33 respondents were specialist doctors and 19 respondents were general practitioners. In this study the working period of respondents varied, it was known that the highest number of respondents was 1–10 years of work, as many as 43 people (82.7%), while only 1 person (1.9%) whose work period was 31–40 years.

### Univariate analysis

#### Completion of medical records filling

The measurement results were conducted at Stella Maris Hospital by observing the existing medical record file as many as 92 medical record files consisting of 8 forms in hospitalized patients in January–March 2017. From [Table 2](#), the most incomplete on the complete form of filling in the medical records of inpatients the admission and discharge summaries of 50 files (54.3%), while the complete form is filled with Nursing Assessment and Informed Consent as many as 92 files (100%).

From the results of the study, there were more medical records files filled incompletely, as many as 53 medical record files (57.6%) compared to the complete filled files with 39 medical record files (42.4%) ([Table 3](#)).

**Table 1** Frequency distribution of characteristics of respondents in inpatient installation unit at Stella Maris Hospital in Makassar 2017.

Characteristics of respondents	Frequency (n)	Percentage (%)
<b>Age</b>		
25–29	2	3.8
30–35	13	25
36–45	19	36.5
46–55	14	26.9
56–65	4	7.7
Total	52	100
<b>Gender</b>		
Men	27	51.9
Women	25	48.1
Total	52	100
<b>Education</b>		
General practice doctor	19	36.5
Specialist doctor	33	63.5
Total	52	100
<b>Working period</b>		
1–10	43	82.7
11–20	5	9.6
21–30	3	5.8
31–40	1	1.9
Total	52	100

Source: Primary data.

#### Completeness of medical record facilities (materials)

According to the result, the 33 respondents strongly agreed that the format statement and medical record forms needed to be more simplified (63.5%). Furthermore, 52 respondents agreed that the most on the medical record form statement items were well printed and legible, the medical record form was always available, and the medical record format was easy to understand (100%) and at least form statement and form items. Meanwhile, respondents who disagree the most on the statement items the doctor had difficulty in filling out the medical records (100%) (Table 4).

**Table 3** Total frequency distribution of medical record completion on discharged inpatient at Stella Maris Hospital in Makassar January–March 2017.

Completeness of medical records fill out forms	Result	
	Frequency (n)	Percentage (%)
Complete	39	42.4
Incomplete	53	57.6
Total	92	100

Based on Table 5, the existing facilities (materials) on the completeness of the medical records are classified as deficient. This is evidenced by the respondents who stated that the existing facilities and infrastructure were good as many as 24 respondents (46.2%) while the respondents stated that the existing facilities and infrastructure were not as good as 28 respondents (53.8%).

#### Interview result

The facilities in this study were the availability of a place or materials that can be used and provided by the hospital to assist officers in carrying out medical record activities at Stella Maris Hospital, Makassar. The results of interviews conducted with respondents were quoted below.

“It is undeniable that it has indeed run out of forms like the forms are made different, but we can handle everything well like borrowing other spaces first...”

(JJ, 43 years)

“If possible, not too much is filled in the form, and the contents are repeated, it should be able to be done with an electronic medical record, if possible, an electronic medical record can be improved.”

(S, 25 years)

#### Discussion

Based on the observation results of the medical record file, with the checklist form as many as 92 medical record files,

**Table 2** Frequency distribution of medical record completion on discharged inpatient at Stella Maris Hospital in Makassar from January to March 2017.

Completeness of medical records on fill out forms	Result				
	Total	Complete		Incomplete	
		n	%	n	%
Patient identity	92	62	67.4	30	32.6
Admission and discharge summary	92	42	45.7	50	54.3
Medical resume	92	76	82.6	16	17.4
Initial medical assessment	92	64	69.6	28	30.4
Nursing assessment	92	92	100	0	0
Informed consent	92	92	100	0	0
Medication record sheets	92	51	55.4	41	44.6
Inpatient cover letter	92	75	81.5	17	18.5

**Table 4** Respondent responses to the statement of facilities and infrastructure in the inpatient installation of Stella Maris Hospital in Makassar 2017.

Statement	Strongly agree		Agree		Disagree		Strongly disagree		Total	
	N	%	N	%	N	%	N	%	N	%
Form was easy to fill out	0	0	16	30.8	36	69.2	0	0	52	100
Doctors had difficulties to fill the form	0	0	0	0	52	100	0	0	52	100
Form was well-printed and readable clearly	0	0	52	100	0	0	0	0	52	100
Medical record forms were always available	0	0	52	100	0	0	0	0	52	100
Forms were understandable easily	0	0	52	100	0	0	0	0	52	100
Forms were too many and had Redundant fill out format	0	0	42	80.8	9	17.3	1	1.9	52	100
Form and format of medical records needed to be simplified	33	63.5	12	23.1	7	13.5	0	0	52	100
Average	4	9.7	32	62.1	15	28.5	1	0.27	52	100

**Table 5** Total frequency distribution on statement of medical record facilities (materials) in inpatient installation unit at Stella Maris Hospital in Makassar 2017.

Facilities (materials)	Frequency (n)	Percentage (%)
Decent	24	46.2
Deficient	28	53.8
Total	52	100

it was known that there are more medical record files that were not fully filled, namely 53 medical record files (57%) compared to a fully filled file with 40 medical record files (43%), the percentage of completeness of the medical record file is 57%. This is still distant from the standard set by the Director-General of Health Efforts of the Ministry of Health of the Republic of Indonesia in 2012,<sup>9</sup> which stated that completion of the filling medical records is maximum 24h after completion of services.<sup>6,10,11</sup>

The completeness of the medical record is still unqualified according to Medical record files based on Minister of Health Regulation no. 269 of 2008.<sup>11</sup> The regulation contains the contents of medical records for inpatients at least contain the patient's identity, date and time, the results of the history, the results of the physical and supporting examination, diagnosis, management plan, treatment or action, clinical observation records, discharge summary, name, and signature.<sup>2,5,12</sup>

In percentage of distribution, the respondent statement on facilities to the completeness of the medical records indicated that the existing facilities were still classified as poor. This was evidenced by the respondents stating the existing and good facilities and infrastructure as many as 24 respondents (46.2%) while the respondents stated that the existing facilities and infrastructure were not as good as 28 respondents (53.8%).

From the results of interviews conducted by researchers to informants said that the covers and medical record forms were always available and had sufficient needs, but another

informant said that the forms ran out sometime but could be handled properly. In addition, the researcher also asked the informants regarding the quality of existing facilities and satisfaction of their needs. An Informant stated that the main improvement needed was in the simplification of the medical record form and electronic medical record to support the completeness of the filling and medical record activities. This is in line with the research conducted by Aryanti (2014)<sup>13</sup> in RSAU DR. Esnawan Antariksa Halim Perdana Kusuma Jakarta which shows that the supporting factors for completing the medical record consisting of human resources, facilities and infrastructure, materials, methods, and costs are still not good.

## Conclusion

Based on the results of the research, it can be concluded that the aspects of the completeness of the inpatient medical record file according to the Regulation of the Minister of Health of the Republic of Indonesia Number 269/MENKES/PER/III/2008<sup>11</sup> are the most not filled which is the patient's identity of 30 medical records (32.6%). Furthermore, the description of respondents to the facilities in supporting the completeness of existing medical records is still classified as deficient, as many as 28 respondents support about it (53.8%). It is recommended that the Hospital Management update the format and simplify the medical record form and increase electronic medical records.

## Conflict of interest

The authors declare no conflict of interest.

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