Ad-Dawaa JOURNAL OF PHARMACY

V0l.03 No.01 Page 7-13 DOI : 10.52221/dwj.v1i1.867

Evaluation of Waiting Time for Non-Concoction Electronic Prescriptions for Patients at The Outpatient Pharmacy Installation of Tasik Medika Citratama Hospital, Tasikmalaya City

Muhammad Imam Fauzi[1] , Susan Sintia Ramdhani[2*], Ita Purwati[2]

1. *TMC Hospital Tasimalaya, Indonesia*
2. *STIKes Muhammadiyah Ciamis, Indonesia.*

Correspondance: Ita Purwati
Email: ***ciamishiji@gmail.com***
Address : Jl. K.H. Ahmad Dahlan No.20, Ciamis, Kec. Ciamis, Kabupaten Ciamis, Jawa Barat

ABSTRACT

The waiting time is one of the minimum standards for pharmaceutical services in hospitals, the waiting time for non-concocted drug services is the grace period from the time the patient submits the prescription to the time of receiving the non-concocted drug with the minimum standard set by the Ministry of Health, which is less than 30 minutes. The aim of this study is to determine the suitability of the waiting time for outpatient non-compound electronic prescription services at the Pharmacy Installation of Tasik Medika Citratama Hospital with the minimum standards stipulated in the Decree of the Minister of Health No. 129 of 2008 concerning Minimum Hospital Service Standards. This study is a prospective observational study using the Probability Sampling method by taking samples using quote sampling according to the inclusion criteria. The data taken were 260 non-compound electronic prescriptions. The average waiting time for non-compound electronic prescription services was 25.19 minutes. This meets the Minimum Hospital Service Standards according to the Decree of the Minister of Health No. 129 of 2008.

Keywords : Evaluation, Waiting time recipe service, Hospital.

INTRODUCTION

Pharmaceutical services are one of the health services in hospitals that are expected to meet minimum service standards. According to the regulation of the Minister of Health number 72 of 2016 concerning pharmaceutical service standards in hospitals, it states that a hospital is a health service institution that provides comprehensive individual health services that provide inpatient, outpatient, and emergency services (Porterfield, et al 2014), (Hartini, Y. S., & Sulasmono. 2010). The standards of pharmaceutical services in hospitals aim to improve the quality of pharmaceutical services (I. Susanti. 2013), ensure legal certainty for pharmaceutical personnel and protect patients and the public from irrational use of drugs in the context of patient safety (Permenkes, 2016).

Waiting time is one of the minimum standards for pharmaceutical services in hospitals (McGrath, D. 2008), the waiting time for non-compounded drug services is the time period from when the patient submits a prescription to when the non-compounded drug is received with the minimum standard set by the Ministry of Health, which is less than 30 minutes, while the waiting time for compounded drug services is the time period from when the patient submits a prescription to when the compounded drug is received, which is less than 60 minutes (Menkes, 2008).

In the Outpatient Pharmacy Installation of Tasik Medika Citratama Hospital, lately many patients have complained and are impatient waiting in line, so that they often upload comments about the waiting time for outpatient prescription services at the Pharmacy Installation of Tasik Medika Citratama Hospital on social media, especially when waiting for prescriptions for compounded drugs.

Pharmaceutical service standards are benchmarks used as guidelines for pharmaceutical personnel in providing pharmaceutical services (Menkes, 2008).

Electronic prescribing at Tasik Medika Citratama Tasikmalaya Hospital has been started since July 2019, currently electronic prescribing is only used in some outpatient prescriptions (Siregar, 2018). And only a few polyclinics are now using electronic prescriptions, including general polyclinics, heart polyclinics, surgical polyclinics, neurology polyclinics and internal medicine polyclinics. Not all doctors use electronic prescriptions, only a few doctors. The electronic

prescriptions used in these polyclinics are for general guarantors, insurance, and BPJS. Evaluation needs to be carried out first before developing it to other units. Evaluation is useful for knowing how a system has been run and can be developed for a wider system.

Electronic Prescription is a prescription transmitted using electronic media to replace handwriting, which connects various information between doctors, electronic prescription devices, and pharmacies either directly or indirectly (McGrath, 2008). Electronic prescribing is a part of technology where other medical personnel can write electronic prescriptions and can send them to the computer section of the intended pharmacy in an e-prescribing network, directly from the doctor's practice/care facility (Wongkar,L., Wongkar,L., (2000)2000).

TOOLS AND MATERIALS

In this study, the tools and materials used in data collection were Data Collection Sheets containing the patient's initials, number of drug items, time of prescription entry, time of prescription exit, and total prescription service time (minutes). To calculate the average duration of time for processing non-compound electronic prescriptions from receiving non-compound electronic prescriptions to handing over the drugs to the patient.

METHODS

This study is a prospective observational study using the Probability Sampling method (random sample) by taking samples using quote sampling (quota sampling) according to the inclusion criteria (Lemeshow, S. et al, J. 2007).

Data Collection

The data collection technique in this study was through direct observation or observation of outpatient prescriptions received every Monday to Saturday with a research instrument using a Data Collection Sheet (LPD) containing the patient's initials, number of drug items, time the prescription was received, time the prescription was issued, and total prescription service time (minutes).

The source of research data is the prescription of outpatients who receive services at the Pharmacy Installation of Tasik Medika Citratama Hospital. The number of samples as a source of research data is calculated using binomial proportions (Sugiyono, 2013).

$$n = \frac{Z1 - \frac{}{2} . P\,(1 - P)N}{d2(N - 1) + Z21 - {}^{a} . P\,(1 - P)}$$

Description:

N : population size is the average number of patients per month

n : minimum number of samples required

Z21-α/2 : degree of trust

P : patients who come to the Pharmacy Installation to fill a prescription

d : limit of error or absolute precision

Data Processing and Analysis

Data Analysis Techniques Using Microsoft Excel.

Average Formula (Mean)

$X = \Sigma X / N$

Description:

X = average time

∑ X = total service time

N = number of samples

RESULTS

The number of samples in this study was 260 non-compound electronic prescriptions taken from Monday to Friday, July 6, 2020 to July 17, 2020. Sampling of non-compound electronic prescriptions was based on inclusion criteria, in one outpatient non-compound electronic prescription consisting of 3-12 drug items entered at the Pharmacy Installation of Tasik Medika Citratama Hospital, there were 260 non-compound electronic prescriptions.

Based on this study, the average waiting time for non-compound electronic prescription services at the Pharmacy Installation of Tasik Medika Citratama Hospital was obtained as shown in table 1 below:

Table 1 Average Results of Waiting Time for Non-Compound Electronic Prescription Services

Hari ke	Jumlah resep	Waktu tunggu	Rata –rata waktu tunggu perhari
1	26	08:46:00	**00:20:14**
2	26	11:12:00	**00:25:51**
3	26	11:33:00	**00:26:39**
4	26	11:23:00	**00:26:16**
5	26	11:53:00	**00:27:25**
6	26	11:38:00	**00:26:51**
7	26	11:06:00	**00:25:37**
8	26	10:35:00	**00:24:25**
9	26	10:06:00	**00:23:18**
10	26	11:30:00	**00:26:32**
Jumlah	**260**	**13:42:00**	**00:25:19**

Based on the data in table 1 above, the average waiting time for non-mixed electronic prescription services is 25.19 minutes with the fastest average on the first day, namely 20.14 minutes, and the longest on the fifth day, namely 27.25 minutes, with a difference in processing time of 7.11 minutes.

On the first day, the average waiting time was the fastest, which was 20.14 minutes because there had been no accumulation of patients at the Pharmacy Installation, while on the fifth day, the average waiting time was 27.25 minutes, longer than on other days because some of the 22 male officers were performing Friday prayers, so that the number of human resources decreased and there was an accumulation of patients at the Pharmacy Installation.

DISCUSSION

Electronic prescription service is when the electronic prescription from the doctor is verified, then the electronic prescription is screened (administrative, pharmaceutical and pharmacological), given a queue number, the prescription is inputted and the note is handed over to the patient after the input results are confirmed to be correct, while the patient pays to the cashier, the medicine is prepared then packaged and the label is attached to the medicine clip. Officers who carry out screening, inputting, checking, taking medicine, finishing and handing over medicine are carried out by different officers so that service time is faster and the possibility of drug errors can be avoided.

There are internal and external factors that affect the waiting time for prescription services. Internal factors include: Out of stock drugs and must be brought to another depot,

Incorrect input of patient names, Incorrect input of labels, Problematic systems and printers, Inappropriate electronic prescriptions must be confirmed to the relevant doctor, Billing checks are still done manually and lack of human resources. External factors include: Patients who have completed the administration do not go directly to the Pharmacy Installation to pick up the medicine, sometimes the patient goes to the canteen first, the patient does not submit proof of payment of the administration fee to the Pharmacy Installation, the patient goes home immediately after completing the administration and picks up the medicine the next day, the patient's family sometimes does not know the patient's date of birth when picking up the medicine, so they have to ask the patient concerned for the date of birth.

Based on the results of Nita Asiah's research (2019) on "Waiting Time for Outpatient Prescription Services at The Pharmacy Installation of Tasik Medika Citratama Hospital in Tasikmalaya", the average waiting time for non-compound prescription services was 27.30 minutes with 33 human resources, while the average waiting time for non-compound electronic prescription services was 25.19 minutes with 30 human resources. Based on a comparison of these two studies, non-compound electronic prescriptions have a faster waiting time than manual written prescriptions with a difference of 2.11 minutes.

From all the samples studied, the average per day and the average total of the research results showed that there was no waiting time that exceeded the required waiting time. This is due to several things, namely the service at the Outpatient Pharmacy Installation of Tasik Medika Citratama Hospital follows the SOP (Standard Operational Procedure) that has been set. Officers at the Pharmacy Installation also receive regular training so that knowledge and skills in service can continue to be improved because skills have a significant influence on the quality of service.

CONCLUSION

The results of this study state that the average waiting time for prescription services at the Pharmacy Installation of Tasik Medika Citratama Hospital has met the Minimum Hospital Service Standards according to the Decree of the Minister of Health No. 129 of 2008 which has a Minimum Service Standard for non-compound prescriptions of less than 30 minutes.

ACKNOWLEDGEMENTS

We would like to express our gratitude to the hospital for allowing us to carry out research

on evaluating waiting times based on Minister of Health regulations. Thank you also to colleagues who have helped in the research process so that this research can be completed well.

REFERENCES

Porterfield, K. Engelbert, and A. Coustasse, 2014. “Electronic prescribing: improving the efficiency and accuracy of prescribing in the ambulatory care setting,” *Perspect. Health Inf. Manag*.

Hartini, Y. S., & Sulasmono. 2010. *Apotek Beserta Naskah Peraturan Perundang-Undangan Terkait Apotek Beserta Naskah dan Ulasan Permenkes tentang Apotek Rakyat* (Revisi cet). Yogyakarta : Universitas Sanata Dharma.

I. Susanti. 2013. "Identifikasi Medication Error Pada Fase Prescribing, Transcribing, Dan Dispensing Di Depo Farmasi Rawat Inap Penyakit Dalam Gedung Teratai, Instalasi Farmasi RSUP Fatmawati Periode 2013"," Skripsi, UIN Syarif Hidayatullah Jakarta, Jakarta.

Lemeshow, S., Heosmer Jr., D., W., Klar, J. 2007. *Besar Sampel dalam Penelitian Kesehatan*, Yogyakarta: GMU Press. Halaman 25.

McGrath, D. 2008. E-prescribing. The Journal of Medical Practice Management: MPM, 24(1), 50-52.

Menkes, R. 2008. *Keputusan Menteri Kesehatan Republik Indonesia Nomor 129/MENKES/SK/II/2008 Tentang Standar Pelayanan Minimal Rumah Sakit.* (p. Halaman 13). Departemen Kesehatan RI.

Permenkes. 2016. “Permenkes No 72 Tahun 2016,”Peraturan Menteri Kesehatan Republik Indonesia Nomor 72 Tahun 2016 Tentang Standar Pelayanan Kefarmasian Di Rumah Sakit. *Jakarta: Departemen Kesehatan RI. 2016.*, *4*(June), 2016.

Siregar, Sri Endang. 2018. Waktu Tunggu Pelayanan Resep Rawat Jalan di Instalasi Farmasi Rumah Sakit Universitas Sumatra Utara. Skripsi, Universitas Sumatra Utara.

Sugiyono, 2013. ”Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung CV alfabeta,” Metod. Penelit. Pendidik. Pendekatan Kuantitatif, Kualitatif, dan R&D

Wongkar,L., 2000. *Analisi Waktu Tunggu Pelayanan Pengambilan Obat di Apotek Kimia Farma Kota Pontianak tahun 2000.*Universitas Indonesia, Depok. Halaman 79-84.2000.