

Evaluation of Lead Time for Non Concocted Patiens Electric Electronic Prescription at The Pharmaceutical Installation Medica Citratama Tasikmalaya Hospital

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ABSTRACT

E-prescribing is a recipe that is transmitted using electronic media to replace handwriting, which connects various information between doctors, electronic prescription devices, and pharmacies both directly and indirectly. Electronic prescribing is a part of technology in which other medical can write electronic prescriptions and can send it to the intended pharmacy computer section in an eprescribing network, directly from the doctor's office / place of care. Utilization of an electronic system that was originally only aimed at saving paper (paperless), but in its development many benefits are obtained from this system. Among other things to prevent reading errors in recipes, errors in reading the rules of use and shorten service time. This research was conducted by collecting data simultaneously for 10 days from July 6, 2020 to July 17, 2020. The data taken were 260 outpatient non-concocted electronic prescriptions. The leading time for outpatient non-concocted electronic prescription at the street Pharmaceutical Installation Medika Citratama Tasikmalaya Hospital services is 25.19 minutes. This has fulfilled the Decree of the Minister of Health No.129/Menkes/SK/II/2008, namely the leading time for concoctions is less than 60 minutes and the waiting time for non-concoctions is less than 30 minute.

Keywords : Lead time, e-prescribing, hospital pharmaceutical Installation.

INTRODUCTION

Standards of pharmaceutical services in hospitals which aim to improve the quality of pharmaceutical services, guarantee legal certainty for pharmaceutical personnel and protect patients and the public from drug use which is irrational in the context of patient safety. (Permenekes RI, 2016). Waiting time is one of the minimum standards for pharmaceutical services in Hospitals, the waiting time for non-concocted drug services is a grace period the time from when the patient submits the prescription to when he receives the non-concocted medication with the minimum standards set by the Ministry of Health, namely less than 30 minutes, while the waiting time for compounded medicine services is a grace period from the patient handing over the prescription to receiving the prescribed medication, namely less than 60 minutes. Pharmaceutical service standards are benchmarks used as guidelines for pharmaceutical personnel in providing services pharmacy (Menkes RI, 2008).

Implementation of electronic prescribing and pharmacy changes can increasing the accuracy of a pharmacy function (Burgin A, 2014). Experts acknowledge the implementation of electronic prescribing, for the future, of new drugs by drug companies and could result in an increase in the number of prescriptions written for geriatric patients overall (A. Porterfield et al, 2014). Hospital pharmacy services are one of the activities in hospitals that support the achievement of quality health services (Satibi et al, 2017). Minimum Service Standards are provisions regarding the type and quality of basic services which are mandatory regional affairs that every citizen has the right to obtain at a minimum and are also technical specifications regarding minimum service benchmarks provided by public service agencies to the community (Pontefract SK et al, 2018). One of the minimum standards for pharmaceutical services in hospitals is waiting time (Nurjanah, et al, 2016).

The results of several previous studies show that the waiting time for prescription services is still long or does not meet the minimum service standards set by the Ministry of Health, namely \leq 60 minutes (Septini, R. 2012). There are many research results regarding electronic drug prescribing and many factors contribute to the waiting time for prescription services, namely the type of prescription, number of prescriptions, human resources and facilities (Van Wilder A et al, 2016).

TOOLS AND MATERIALS

In this research, materials and tools were used in data collection in the form of a Data Collection Sheet (DCS) containing the initials of the patient's name, number drug items, time the prescription came in, time the prescription came out, and total service time recipe (minutes).

METHODS

1. Data collection

The data collection technique in this research is through observation directly or observe outpatient prescriptions that come in every Monday until Saturday with research instruments using DCS which contains the patient's initials, number of drug items, time incoming prescription, outgoing prescription time, and total prescription service time (minutes). The source of research data is the prescriptions that outpatients receive services at the Tasik Medika Citratama Hospital Pharmacy Installation. Amount The sample as a source of research data is calculated using binomial proportions.

From data from observations in determining samples at the Home Pharmacy Installation Tasik Medika Citratama Hospital in July 2019 – January 2020 there were 4542 number of electronic prescriptions and averaged to 757 electronic prescription every month.

The work procedures carried out in this research are as follows:

2. Observation

This stage was carried out to view data on patient visits to the Tasik Medika Citratama Hospital Outpatient Pharmacy Installation so that samples taken in the study could be calculated.

3. Implementation Stage

Collecting research data at Tasik Medika Citratama Hospital from July 1 2020 to July 10 2020. Total The samples taken were 260 outpatient electronic prescriptions.

4. Final Stage

Preparing a research report includes processing the data obtained and discussing research results based on existing data connected to related theories.

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

Data processing and analysis in the form is the average prescription service time. This assessment of the speed of prescription service is said to meet the requirements of Decree of the Minister of Health of the Republic of Indonesia Number 129 of 2008, concerning Minimum Hospital Service Standards for non-concocted drug prescriptions, the requirements are met if the service time is less than 30 minutes and for rescriptions compounded medicines, meet the requirements if the service time is less than 60 minutes.

RESULTS

Based on this research, the average waiting time for non-mixed electronic prescription services at the Tasik Medika Citratama Hospital Pharmacy Installation is as shown in table 1 below:

Table 1. The result of lead time non-concocted electronic prescription

Day	Amount of Prescription	Prescription lead time	Average lead time
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
Total	260	13:42:00	00:25:19

DISCUSSION

Based on the data in table 1 above, the average lead 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 time difference Processing 7.11 minutes. On the first day the average waiting time was the fastest, namely 20.14 minutes because there had been no accumulation of patients in the Pharmacy Installation, while on the fifth day the average of waiting time is 27.25 minutes longer than other days because some male officers carry out Friday prayers, so the number of human resources is reduced and there is a buildup of patients in the Pharmacy Installation. Other factors that influence the length of waiting time for prescription services include:

1. Internal Factors

- a. The medicine is empty and must be taken first to another depot.
- b. Entering the patient's name incorrectly
- c. Incorrect label input. System and printer problems.
- e. Electronic prescriptions that are not suitable must be confirmed by the doctor concerned.
- f. Checking billing is still done manually and lacks human resources.

2. External Factors

- a. Patients who have completed the administration do not go straight to the Pharmacy Installation to collect the medicine, sometimes the patient goes to the canteen first.
- b. The patient did not submit proof of payment in full for administrative payments to the Pharmacy Installation department.
- c. The patient goes home immediately after completing the administration and collects the medicine the next day.
- d. When taking medication, the patient's family sometimes does not know the patient's date of birth, so they have to ask the patient concerned about the date of birth.

Based on the results of Nita Asiah's research (2019) regarding "waiting time for outpatient prescription services at the Tasik Medika Citratama Hospital Tasikmalaya Pharmacy Installation, it was found that the average waiting time for non-mixed prescription services was 27.30 minutes with a total of 33 human resources, while the average The average waiting time for non-mixed

electronic prescription services is 25.19 minutes with a total human resource of 30 people. Based on a comparison of these two studies, non-prescription electronic prescriptions have a faster waiting time for service compared to manually written prescriptions with a difference of 2.11 minutes.

In this study the average waiting time for prescription services required to complete a non-compounded electronic prescription was 25.19 minutes. Of all the samples studied, the daily average and total average of research results did not have a waiting time that exceeded the required waiting time. This is due to several things, namely that the services at the Tasik Medika Citratama Hospital Outpatient Pharmacy Installation follow established Standard Operational Procedures. Officers in pharmacy installations 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.

The results of this research state that the average waiting time for prescription services at the Tasik Medika Citratama Hospital Pharmacy Installation meets the Minimum Hospital Service Standards in accordance with Minister of Health Decree No. 129 of 2008 which has a Minimum Service Standard for non-mixed prescriptions of less than 30 minutes.

CONCLUSION

The number of recipes examined in this study was 260 recipes non-concocted outpatient electronics with the following results: 1. The average lead time for non-mixed electronic prescription services is 25.19 minutes. 2. These results are in accordance with the Minimum Service Standards required by Minister of Health Decree No.129/Menkes/SK/II/2008 concerning Minimum Hospital Service Standards.

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