



# Analysis of Real and Delayed Waiting Time for Outpatient Prescription Services at Pharmacy Department of Hospital X in Padang Pariaman Regency, West Sumatra Province, Indonesia

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**ABSTRACT:** Pharmaceutical services are services that are expected to meet Minimum Service Standards in Hospitals. Based on the Decree of the Minister of Health of the Republic of Indonesia no: 129/Menkes/SK/II/2008 concerning Minimum Hospital Service Standards, one of the indicators that pharmaceutical services must meet is waiting time. Waiting time for drug service is the time from the patient submitting the prescription until receiving the drug. The purpose of this study was to study the real and delayed waiting time for outpatient prescription services at the Pharmacy Department of Hospital X in Padang Pariaman Regency. This type of research is quantitative, with random sampling, with the Accidental Sampling technique of outpatient prescriptions at the Pharmacy department of Hospital X in Padang Pariaman Regency. The research was conducted from October to December 2020, the number of samples was determined by the Slovin formula, obtained as many as 100 prescriptions were taken for 4 weeks on every working day, during December 2020 with the results in the form of 70 non-concoctions and 30 concoctions prescription. The result of this study is the length of waiting time for non-concoction prescription services with an average of 36.15 minutes, while the minimum service standard for waiting time for non-concoction prescription services is  $\leq 30$  minutes. The results of waiting time for concoction prescription services with an average of 74.01 minutes, while the minimum service standard for waiting time for concoction prescription services is  $\leq 60$  minutes. It can be concluded that the waiting time for non-recipient prescription services at the Pharmacy department of Hospital X in Padang Pariaman Regency is not by the provisions with an average result of 36.15 minutes with real-time is 5.01 minutes and delayed time of 31.14 minutes, while the waiting time for concoction prescription services is also not by the provisions with an average result of 74.01 minutes with real-time 15.87 minutes and delayed time 58.14 minutes.

**KEYWORDS:** Real-time, delayed time, Non-concocted drugs, concocted drugs

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## I. INTRODUCTION

Health is important for humans to survive and move. The importance of health encourages the government to establish healthcare facilities. A place that is one of the public health service facilities is a hospital [1]. Based on the Decree of the Minister of Health of the Republic of Indonesia number 129/Menkes/SK/II/2008 states that hospitals are health facilities that organize individual health services which include promotive, preventive, curative, and rehabilitative services by providing inpatient, outpatient and emergency services [2]. Pharmaceutical services are services that are expected to meet minimum service standards in hospitals. According to the regulation of the Minister of Health number 72 of 2016 concerning pharmaceutical service standards in hospitals states that pharmaceutical services are a direct service that is

responsible for patients related to pharmaceutical preparations, to achieve definite results to improve the quality of life of patients [3].

One of the minimum standards of pharmaceutical services in hospitals is waiting time. The waiting time for finished medicine services is the time from the patient submitting the prescription to receiving the finished medicine. Meanwhile, the waiting time for concocted prescription services is the time from the patient submitting the prescription to receiving the concocted drug [2]. Waiting time will influence the quality of health services in hospitals, especially when viewed from patient satisfaction [4]. Patient satisfaction is often used as a benchmark in assessing the quality of service in hospitals so that every hospital tries to improve the quality of hospital services and can give a good impression to patients. The level of patient satisfaction depends on the quality of a product or service in the health services provided at the hospital [5].

Research conducted by Purwandari et al, 2017 [6] stated that the average waiting time for non-recipe recipes was 48.90 minutes and the average waiting time for concoction recipes was 46.54 minutes. Non-recipe recipes have a longer average waiting time than concoction recipes, this is due to the percentage of non-recipe recipes obtained as much as 91% and concoction recipes as much as 9%. Meanwhile, research by Maftuhah and Susilo in 2016 [7] showed that the average waiting time for outpatient prescription services at the Pharmacy Depot of the Gunung Jati Regional General Hospital, Cirebon City for non-recipient prescription services was 92.41 minutes and prescription concoctions were 146.31 minutes. From these data, it can be concluded that the average waiting time for concoction and non-concoction prescription services does not meet the minimum hospital service standards according to the Indonesian Minister of Health Decree No. 129 of 2008. Nurjanah's research, 2016 [8] states that the factors that inhibit the waiting time for prescription services to be long are the availability of labor and patient visiting hours. So that these factors have an impact on patient satisfaction with waiting time services.

## II. RESEARCH METHODS

This research was conducted from October to December 2020. The research was conducted at Pharmacy Department of Hospital X in Padang Pariaman Regency. This research is quantitative. Data collection through a prescription service waiting time observation sheet by observing from the prescription receipt process to drug delivery is divided into a real-time component, namely when the prescription is done by the officer, and a *delay* component, namely when the prescription is placed waiting to be done. From the observation of these components, it can be seen in which part there is a long process of prescription service. The population in this study were all outpatient prescriptions who entered the department pharmacy at Hospital X in Padang Pariaman Regency.

Sampling using random *sampling* techniques using the Slovin formula [9] with a total of 100 prescriptions. Data collection in this study was through observation techniques, namely observations made directly on the object under study. [10], In this study, sampling was carried out in the first 5 prescriptions that entered the pharmacy department every day with the minimum requirement that there must be a concoction recipe in one of them. If none of the first 5 prescriptions are concoction recipes, then the fifth recipe taken is the first concoction recipe that comes in. Data collection from Monday to Friday for 4 weeks in December 2020 with a total sampling time of 20 working days. Operational Definition The waiting time for finished medicine services is the time from the patient submitting the prescription to receiving the finished medicine  $\leq 30$  minutes, while the waiting time for concocted medicine services is the time from the patient submitting the prescription to receiving the concocted medicine  $\leq 60$  minutes [2].

## III. RESULTS AND DISCUSSION

Data collection has been carried out at Hospital X in Padang Pariaman Regency for 1 month (20 working days), namely in December with the results consisting of 70 non-concocted prescriptions (70%) and 30 concocted prescriptions (30%).

### Waiting Time for Non-concocted Prescription Service

Based on the results of observations made by researchers on 70 non-concocted sample prescriptions at the X Hospital Department of Padang Pariaman Regency, the following results were obtained:

**Table 1.** Average Waiting Time for Non-concocted Prescription Service Process

No.	Stages of Prescription Service	Average time (minutes)		
		Real	Delay	Total
1	Numbering	0,06		0,06
2	Etiquette	2,36	11,80	14,16
3	Drug Preparation	2,02	8,13	10,15

4	Drug Delivery	0,57	11,21	11,78
<b>Average</b>		<b>5,01</b>	<b>31,14</b>	<b>36,15</b>

The flow of prescription services starts from numbering, etiquette, drug preparation, and drug delivery. The average waiting time for prescription services is the sum of the total real-time and *delay*. Based on Table 1, the average real time for drug preparation is 5.01 minutes and the *delay* time is 31.14 minutes. The *delay* time is greater than the real-time, meaning that the non-recipe prescription service process is less effective. The longest delay occurs when making etiquette. Based on observations, this is due to the large number of incoming prescriptions and the lack of human resources. *Delay* also occurs at the drug delivery stage due to the patient call queue. The standard waiting time for non-recipe prescription services is  $\leq 30$  minutes. Based on observations, the average waiting time for non-recipe prescriptions is 36.15 minutes, which shows that the waiting time for non-recipe prescription services does not meet the regulations of the Minister of Health.

### **Waiting Time for Prescription Service for Concocted Medicine**

30 concocted prescriptions were obtained at the pharmacy department of Hospital X in Padang Pariaman Regency, with the following results:

**Table 2.** Average Waiting Time for the Prescription Service Process

No.	Stages of Prescription Service	Average time (minutes)		
		Real	Delay	Total
1	Numbering	0,03		0,03
2	Etiquette	3,97	20,16	24,13
3	Drug Preparation	11,22	25,04	36,26
4	Drug Delivery	0,65	12,94	13,59
<b>Average</b>		<b>15,87</b>	<b>58,14</b>	<b>74,01</b>

Based on Table 2, the average real time is 15.87 minutes and the *delay* is 58.14 minutes. The *delay* time is greater than the real-time, meaning that the concocted prescription service process is not yet effective. *Delay* is greater at the drug preparation stage. This is due to the lack of human resources in the drug preparation section. So that the medicine will be concocted when the officer has finished his work at another stage. The standard waiting time for concocted prescription services should be  $\leq 60$  minutes, but the results of the study showed that the average waiting time for concocted prescriptions was 74.01 minutes, which indicates that the waiting time for concocted prescription services has not met the applicable regulations.

**Table 3.** Total Percentage of waiting time

	Non concocted		concocted	
	n	%	N	%
Conforms to Standard	36	51%	13	43%
Not up to Standard	34	49%	17	57%
<b>Total</b>	<b>70</b>	<b>100%</b>	<b>30</b>	<b>100%</b>

Table 3 shows that if the waiting time for prescription services is adjusted to the Permenkes Standard, the waiting time for non-recipe prescription services that comply with the standard ( $\leq 30$  minutes) is 51%, and for the waiting time for prescription services for concocted drugs that comply with the standard ( $\leq 60$  minutes) is 43%. The waiting time for prescription services is divided into 2, namely non-recipe and concoction prescriptions. The waiting time for non-recipe prescription services is the time from the patient submitting the prescription to receiving the finished medicine. Meanwhile, the waiting time for concocted prescription services is the time from the patient submitting the prescription to receiving the concocted drug [2].

There are 12 human resources in the outpatient Hospital Pharmacy Department of Hospital X in Padang Pariaman Regency, consisting of 3 pharmacists, 6 pharmacist assistants, and 3 administrative staff. Based on Permenkes of the Republic of Indonesia Number 56 of 2014 concerning Hospital Classification and Licensing, type C hospitals in outpatient pharmaceutical services must have 2 pharmacists and at least 4 pharmaceutical technical personnel. So, the availability of human resources in the pharmacy of Hospital X pharmaceutical department of Padang Pariaman Regency has met the requirements of the Indonesia Ministry of

Health. However, after observation, the existing human resources are divided into 2 shifts so that it is less effective in its implementation. This was seen during the observation that in the morning shift, there was a buildup of prescriptions, thus prolonging the waiting time.

Based on ministry of Health Rule No. 72 of 2016 concerning Pharmaceutical Service Standards in Hospitals, states that the calculation of pharmacist needs is based on the workload in Pharmaceutical Services in outpatients which includes managerial pharmaceutical services and clinical pharmaceutical services with prescription review activities, drug delivery, recording drug use and counseling, which ideally requires 1 pharmacist for 50 patients [3]. Meanwhile, the incoming prescriptions at the X Hospital outpatient pharmacy in Padang Pariaman Regency are around 100 prescriptions per day. During the observation, there was only 1 pharmacist a day, so that the incoming prescriptions exceeded the capacity of the existing pharmacists. The cause of the inappropriate waiting time for prescription services of the two types of prescriptions is due to the large number of prescriptions that are stacked in the etiquette and drug delivery sections. The backlog in the etiquette-making process is because the etiquette writing system at the X Hospital outpatient pharmacy in Padang Pariaman Regency is computerized. This means that the etiquette of each drug in the prescription must be inputted into the computer. This is what causes the long waiting time because the clerk inputs each drug item into the computer. So that there is a buildup of drug prescriptions.

At the time of drug delivery, *delays* often occur. This is because the officer does not immediately hand over to the patient after the medicine has been packaged. During the observation, it was found that the drugs that had been packaged were left to accumulate first, and after a rather large collection of drugs were only brought forward for the delivery of drugs to patients. Based on the research conducted, facilities and infrastructure in prescription services are adequate. The existence of the Hospital Management Information System greatly supports the prescription service process. This is clarified by the observation that the hospital system information program has been able to see the stock of drugs so that it can immediately find out the availability of drugs. The obstacle that is felt is the unstable internet network, which interferes with prescription *entry* and etiquette writing.

The waiting time for drug services at the Pharmacy Department of Hospital X in Padang Pariaman Regency is long. *The* process from stage to stage occurs a long enough *delay* that will affect the next stage. The observation results explained that the average waiting time for non-recombinant drug services was 36.15 minutes and concocted drugs were 74.01 minutes. In Maftuhah and Susilo's research, 2016 [7], the number of prescriptions received at the pharmaceutical department is also one of the factors that affect the waiting time for prescription services and the number of drug items and the number of concoctions in each prescription also affects the length of waiting time for prescription services. In line with research conducted by Siregar, 2018 [11] which affects the waiting time for concoction services is that it takes a long time, starting from grinding the drug to wrapping the concoction. Waiting time is one of the components that cause patient dissatisfaction, which has an impact on patient loyalty. This illustrates how important the role of service speed is to the quality of service of a hospital [8]. The discrepancy between the waiting time for prescription services and the existing standards will result in the time required by patients to get their medicine becoming longer. This can result in patient dissatisfaction and can reduce the quality of service [12], whereas patient satisfaction with the quality of pharmaceutical services is an important indicator of the quality of health services in hospitals [13].

#### IV.CONCLUSION

In this study it can be concluded that The waiting time for non-recipient prescription services at the Pharmacy Department of Hospital X in Padang Pariaman Regency is not by the provisions with an average result of 36.15 minutes with real-time is 5.01 minutes and the delayed time of 31.14 minutes, while the waiting time for concoction prescription services is also not by the provisions with an average result of 74.01 minutes with a real-time 15.87 minutes and delayed time 58.14 minutes

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