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## Compounded Prescription Services At The Garuda Community Health Center In Pekanbaru

Rickha Octavia<sup>1)\*</sup>, Artha Carolina<sup>2)</sup>, Shintya Risvika Ikhsan<sup>3)</sup>, Siti Zahara<sup>4)</sup>, Uci Ramadhanty<sup>5)</sup>,  
Yona Amelia<sup>6)</sup>

<sup>1,2,3,4,5,6)</sup> Pharmacy Professional Education Program, Faculty of Pharmacy, Sekolah Tinggi Ilmu Farmasi  
Riau, Indonesia

\*Corresponding Author

Email: [rickhaoctavia@stifar-riau.ac.id](mailto:rickhaoctavia@stifar-riau.ac.id)

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### Abstract

Waiting time for prescription services is one of the indicators of pharmaceutical service quality that may affect service efficiency and patient experience. This study aimed to describe the waiting time for compounded and non-compounded prescription services at the Pharmacy Installation of Garuda Health Center, Pekanbaru City, and to determine their compliance with applicable service standards. This study used a descriptive method with a quantitative approach. Samples were selected using purposive sampling, resulting in 100 prescriptions consisting of 25 compounded and 75 non-compounded prescriptions. Data were collected from June 2 to June 13, 2026, by measuring the time from receipt of the prescription until the medication was handed over to the patient. Data were analyzed using Microsoft Excel to calculate the average waiting time. The results showed that the average waiting time was 15.4 minutes for compounded prescriptions and 10.8 minutes for non-compounded prescriptions. Both results met the applicable standards of  $\leq 60$  minutes for compounded prescriptions and  $\leq 30$  minutes for non-compounded prescriptions. Therefore, prescription services at Garuda Health Center met the established pharmaceutical service standards.

**Keywords:** *Pharmaceutical Services; Waiting Time; Compounded Prescription; Non-Compounded Prescription; Health Center.*

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## INTRODUCTION

Community Health Center is a basic health service facility that organizes health efforts for maintenance, health improvement (promotive), disease prevention (preventive), disease cure (curative), and health recovery (rehabilitative), which are carried out in a comprehensive, integrated, and sustainable manner. The concept of unity of health efforts is a guideline and handle for all health service facilities in Indonesia, including Community Health Center (Permenkes, 2020).

Pharmaceutical services at Community Health Center are an inseparable unit from the implementation of health efforts, which play an important role in improving the quality of health services for the community. Pharmaceutical services at Puskesmas must support three main functions of Community Health Center, namely as a center for health-oriented development, a center for community empowerment, and a first-tier health service center that includes individual health services and public health services (Permenkes, 2020).

In the context of pharmaceutical services, one of the main indicators of service quality that is easy to observe and has a direct impact on the patient experience is the waiting time for prescription services (Amiruddin et al., 2023). Waiting time for prescription services reflects the speed and efficiency of pharmacists in delivering drugs to patients, which is measured from the time the prescription is submitted to the patient receives the drug.

The waiting time for prescription services can be divided into two types, namely the waiting time for non-concocted drug prescription services and the waiting time for concocted drug services. The waiting time for non-concocted drug prescription services is the time from the patient to the patient receiving the non-concocted drug, where the prescription for this non-concocted drug is a drug without first doing the compounding stage by pharmacists who are in the pharmacy installation. Meanwhile, the waiting time for concocted drug services is

the time from the time the patient submits the prescription until the patient receives the concocted drug, where the drug will be formulated first by the pharmacist according to the dosage recommended by the doctor (Amaliany et al., 2018).

Based on the Decree of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning Minimum Service Standards for Hospitals, the maximum waiting time for drugs is 30 minutes for finished drugs (non-concocted) and 60 minutes for concocted drugs. This waiting time is calculated from the time the patient submits the prescription to receiving the drug and leaving the Pharmaceutical Installation.

Based on research conducted by Putri et al. (2025) regarding the description of the waiting time for outpatient prescriptions at Community Health Center X Palembang City, it was obtained that the average waiting time for non-concocted prescription services was 3.7 minutes, while the average waiting time for concocted prescription services was 12.1 minutes. These results show that the waiting time for prescription services at Community Health Center X still meets the service standards that has been determined. In addition, research conducted by Robby (2021) regarding the waiting time for outpatient prescription services at the Community Health Center Y pharmacy installation as an indicator of the minimum service standards of the Puskesmas obtained that the average waiting time needed to complete a concocted prescription is 9.10 minutes and to complete a finished drug prescription is 2.56 minutes which shows that it still meets the set standards.

Based on this description, the waiting time for concocted and non-concocted prescription services is one of the important aspects that need to be considered in an effort to improve the quality of pharmaceutical services at the Health Center. The difference in the preparation process between concocted and non-concocted prescriptions allows for a difference in the time needed until the drug is received by the patient. Waiting times that are not in accordance with standards can affect patient comfort and satisfaction with the services provided. Therefore, measurements are needed to obtain an overview of the waiting time for concocted and non-concocted prescription services at the Garuda Health Center and to determine their suitability with applicable service standards. Based on this, the researcher is interested in conducting a study entitled "Overview of Waiting Time for Concocted and Non-Concocted Prescription Services at the Garuda Health Center, Pekanbaru City".

## RESEARCH METHODS

### Tools and Materials

The tools used in this study consist of hardware and software. The hardware used in this study includes laptops to perform data processing and analysis, stationery for recording research data, data collection sheets to record the time of receipt until the completion of the prescription service, and a stopwatch or timer to measure the waiting time for prescription service. The software used in this study is Microsoft Excel to record, group, calculate, and process data on the waiting time for concocted and non-concocted recipe services.

The materials used in this study are in the form of prescription data for concocted and non-concocted drugs of patients served at the Garuda Health Center Pharmacy Installation. Prescription data was obtained during the data collection period from June 2, 2026 to June 13, 2026 and was used to determine the waiting time for prescription services, starting from the time the prescription was received until the drug was handed over to the patient.

### Research Procedure

This study uses a descriptive method with a quantitative approach. The study was conducted to describe the waiting time for prescription services of concocted and non-concocted drugs at the Pharmaceutical Installation of the Garuda Health Center based on the results of measuring the time of prescription service.

The sampling technique used is purposive sampling, which is the selection of samples based on criteria that have been determined by the researcher. The research sample is in the form of patient prescriptions that meet the inclusion criteria, namely outpatient prescriptions served at the Garuda Health Center Pharmacy Installation, mixed and non-concocted recipes, prescriptions received and served during the study period, and prescriptions that have complete service time data.

The instrument used in this study is in the form of a Data Collection Sheet (LPD) to record prescription data and service time. Waiting time measurement is carried out using a stopwatch/timer, by recording the service start time from the time the prescription is received by the pharmacist until the drug is handed over to the patient.

Data collection was carried out by observing the prescription service process at the Garuda Health Center Pharmaceutical Installation. The stages of data collection include the patient's prescription is accepted by the pharmacist, the time of receipt of the prescription is recorded as the start time of the service, staff perform screening and prescription checks, officers prepare drugs according to prescriptions, both concocted and non-concocted drugs, for concoction recipes, the drug compounding process is carried out according to the recipe, the medicine that has been prepared is re-examined, drugs are handed over to the patient accompanied by information about the use of drugs, the time the medication is handed over to the patient is recorded as the time of completion of the service, and waiting time is calculated based on the difference between the service completion time and the service start time.

Data collection was carried out for 14 days, namely in the period of June 2, 2026 until June 13, 2026 at the Pharmaceutical Installation of the Garuda Pekanbaru Health Center. The number of samples obtained was 100 recipes, consisting of 25 concocted recipes and 75 non-concocted recipes.

**Data Analysis**

Data analysis using Microsoft Excel. Mean formula:  $X = \Sigma X / N$ . Description: X = Average time,  $\Sigma X$  = Number of service time, and N = Number of prescriptions.

This assessment of the speed of prescription services is said to meet the requirements of the Decree of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning Hospital Service Standards. For finished drug prescriptions, meet the requirements if the service time speed  $\leq 30$  minutes. For prescription concocted drugs, meet the requirements if the speed of service time  $\leq 60$  minutes.

**RESULTS AND DISCUSSION**

From the results of the study regarding the description of the waiting time for concocted and non-concocted prescription services at the Pharmaceutical Installation of the Garuda Health Center, Pekanbaru City was carried out for 14 days, namely from June 2, 2026 to June 13, 2026 with a sample of 100 prescriptions. The results of the study are presented in two parts, namely the characteristics of prescription samples based on their type and the average waiting time for prescription services.

**Table 1. Number of Samples based on the type of prescription served at the Garuda Health Center**

| Recipe Type | Number of Samples | Percentage |
|-------------|-------------------|------------|
| Concoction  | 25 Recipes        | 25%        |
| Non Racik   | 75 Recipes        | 75%        |
| Total       | 100 Recipes       | 100%       |

Based on the table above, of the 100 recipes that became the research sample, it is known that non-concocted recipes are the most commonly served type of prescription, which

is as many as 75 prescriptions (75%), while concocted recipes amounted to 25 prescriptions (25%). This shows that most patients at the Garuda Health Center receive finished drugs that do not require a compounding process first.

**Table 2. Average Waiting Time for Prescription Services at Garuda Health Center**

| Recipe Type | Number of Recipes | Number of Wait Time (Minutes) | Average Wait Time (Minutes) |                                    |
|-------------|-------------------|-------------------------------|-----------------------------|------------------------------------|
|             |                   |                               | From the Research Results   | Ministry of Health No. 129 of 2008 |
| Concoction  | 25                | 384                           | 15.4                        | ≤ 60 minutes                       |
| Non Racik   | 75                | 811                           | 10.8                        | ≤ 30 minutes                       |

Based on the table above, the average waiting time for concocted prescription services at the Garuda Health Center is 15.4 minutes (a total of 384 minutes for 25 prescriptions), while the average waiting time for non-concocted prescription services is 10.8 minutes (a total of 811 minutes for 75 prescriptions). When compared to the standards set in the Decree of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning Minimum Hospital Service Standards, which is a maximum of 60 minutes for concocted prescriptions and 30 minutes for non-concocted prescriptions, the average waiting time for prescription services at the Garuda Health Center for both types of prescriptions has met the applicable service standards.

**Discussion**

Data collection was carried out for 14 days, namely in the period from June 2, 2026 to June 13, 2026 at the Pharmaceutical Installation of the Garuda Pekanbaru Health Center. Based on the results The research obtained as many as 100 sample recipes that met the inclusion criteria, consisting of 25 concocted recipes (25%) and 75 non-concocted recipes (75%).

The number of non-concocted prescriptions that is much more than the concoction prescription is in line with the general pattern of outpatient prescriptions at the Health Center, considering that concocted drugs are basically only prescribed for certain clinical conditions, such as pediatric patients who require dose adjustments. Similar conditions were also found in the study of Rivandha & Ardhan (2025) at the Kasongan 2 Health Center, which reported the proportion of non-concocted prescriptions of 83.55% of the total 429 prescriptions, much higher than the concocted prescription which was only 14.45%. The results of the measurement of the waiting time for prescription services at the Garuda Health Center Pharmacy Installation, which are compared with the standards of the Decree of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning Minimum Service Standards for Hospitals, are presented in Table 3 below.

**Table 3. Conformity of Waiting Time for Prescription Services with the Standards of the Ministry of Health No. 129/Menkes/SK/II/2008**

| Recipe Type  | Average Wait Time (minutes) | Ministerial Standards No. 129/2008 | Remarks |
|--------------|-----------------------------|------------------------------------|---------|
| Concoction   | 15,4                        | ≤ 60 minutes                       | Conform |
| Non Compound | 10,8                        | ≤ 30 minutes                       | Conform |

Based on Table 3, the average waiting time for concocted prescription services at the Garuda Health Center is 15.4 minutes, while non-concocted prescriptions are 10.8 minutes. Both values are still below the threshold required by the Ministry of Health No. 129/Menkes/SK/II/2008, which is ≤ 60 minutes for concocted prescriptions and ≤ 30 minutes for non-concocted prescriptions, so it can be stated that the prescription services at the Garuda Health Center Pharmacy Installation have met the applicable minimum service standards.

It can also be seen that the waiting time for concocted prescriptions (15.4 minutes) is longer than non-concocted prescriptions (10.8 minutes), with an average difference of 4.6

minutes. This is natural because concoction prescriptions require additional stages in the form of weighing, compounding, mixing, and packaging drugs before being handed over to patients, while non-concocted prescriptions only require taking finished drugs from the storage rack without further compounding processes.

Overall, the measurement results on 100 sample recipes showed that non-concocted prescription services at the Garuda Health Center were completed in an average of 10.8 minutes, while concocted prescriptions were completed in an average time of 15.4 minutes. Both values are below the threshold required by the Ministry of Health No. 129/Menkes/SK/II/2008, which is  $\leq 30$  minutes for non-concocted prescriptions and  $\leq 60$  minutes for concocted prescriptions, so that prescription services at the Garuda Health Center Pharmacy Installation can be declared to have met the applicable minimum service standards.

If examined further, it also appears that the waiting time for concocted prescriptions is consistently longer than for non-concocted prescriptions, with an average difference of 4.6 minutes. This difference is not due to negligence or lack of work speed of pharmacists, but rather is a different service stage between the two types of prescriptions. Non-concocted prescriptions only require taking finished drugs from the storage shelf, while concocted prescriptions require additional stages in the form of weighing, compounding, mixing, and packaging of drugs before they can be handed over to patients. Thus, the difference in waiting time between these two types of prescriptions actually reflects that the compounding process has been carried out according to its stages, not an indication of low service efficiency.

The finding that the waiting time for both types of prescriptions is within the set standard limits also indicates that the difference in the preparation process between concocted and non-concocted prescriptions at the Garuda Health Center has been well managed, so that one type of prescription does not exceed the required waiting time. Thus, even though there is a practically significant difference in waiting time between concocted and non-concocted prescriptions, this difference has not made the prescription service at the Garuda Health Center deviate from the applicable pharmaceutical service standards.

The prescription services measured in this study are included in the stages of assessment and prescription services regulated in the Minister of Health Regulation No. 26 of 2020, which broadly includes the assessment of prescriptions (administrative, pharmaceutical, and clinical requirements), dispensing (preparation or compounding of drugs, providing etiquette, packaging of drugs), and the delivery of drugs accompanied by the provision of drug information to patients. This Regulation emphasizes that prescription services must be carried out quickly and appropriately without reducing the accuracy in each stage, in order to ensure the safety and effectiveness of patient therapy.

The results of the study showing that the waiting time for concocted and non-concocted prescription services at the Garuda Health Center has met the standards of the Ministry of Health No. 129/Menkes/SK/II/2008 indicates that the implementation of the stages of assessment and prescription services at the Garuda Health Center Pharmacy Installation has been running quite efficiently. Thus, the speed of prescription services at the Garuda Health Center can be said to be in line with the principles of quality clinical pharmacy services as mandated in the Minister of Health Regulation No. 26 of 2020, although the overall assessment of conformity to the Regulation needs to consider other aspects outside the waiting time, such as the completeness of the documentation for prescribing assessment and the implementation of providing drug information to patients.

Several factors that also affect the speed of waiting time for prescription services at the Garuda Health Center Pharmaceutical Installation include human resources, facilities and infrastructure, as well as the suitability of prescriptions with the Puskesmas formulary.

In terms of human resources, the availability of sufficient pharmaceutical personnel (pharmacists and pharmaceutical technical personnel) also supports the smooth flow of prescription services. This is in line with research by Nurhayati (2021) who found that the limited number of pharmacists can slow down the prescription service process, especially during busy patient visit hours.

In terms of facilities and infrastructure, the availability of adequate compounding rooms and supporting equipment such as press presses, weighing devices, and drug packaging materials, as well as the layout of drug storage racks adjacent to the compounding table, can shorten the time needed by pharmacists in preparing drugs so as to support the achievement of waiting times that meet standards.

In addition, the compatibility of prescriptions written by doctors with the Puskesmas formulary also plays an important role in the speed of service. Incompatibility between prescriptions and formularies, for example due to empty drug stocks or differences in the strength of preparations, can cause service delays because pharmacists must confirm with the prescribing doctor or make copies of prescriptions for patients who want to redeem drugs elsewhere, as reported by Kusumahati et al. in Rivandha & Ardhany (2025).

The results of this study show that the average waiting time for non-concocted prescription services is 10.8 minutes and concocted prescriptions are 15.4 minutes. When compared to several similar studies, these results show a varied pattern. Research by Putri et al. (2025) at the Nagaswidak Health Center, Palembang City, reported a waiting time for non-concocted recipes of 3.7 minutes and a concocted recipe of 12.1 minutes, which is faster than the results of this study. Meanwhile, Nurhayati's (2021) research at the Purbolinggo Health Center reported that the waiting time for concocted prescriptions was 9.10 minutes and finished drug prescriptions were 2.56 minutes, which was also faster than the Garuda Health Center.

On the other hand, the results of this study are actually faster than the research of Rivandha & Ardhany (2025) at the Kasongan 2 Health Center which reported a waiting time for a concocted recipe of 16.9 minutes, even though the waiting time for a non-concocted recipe (6.43 minutes) was faster than that of the Garuda Health Center in Pekanbaru City. The results of this study are also comparable to the research of Suhaibah et al. (2021) at the Margadana Health Center which reported a waiting time of 9.39 minutes for non-concocted recipes and 14.59 minutes for concocted recipes, as well as the research of Yuliani & Letde (2019) at the Pasir Panjang Health Center which reported a waiting time of about 11 minutes 38 seconds for non-concocted recipes and 13 minutes 45 seconds for concocted recipes.

The variation in waiting time between Puskesmas can be influenced by various factors, including the number of daily patient visits, the number of drug items per prescription, the number and competence of pharmaceutical personnel, the completeness of compounding facilities, and the level of suitability of prescriptions with different formularies in each health care facility. However, in general, all the results of the comparative research above, including the results of this study, show that the waiting time for prescription services at these facilities is still within the limits required by the applicable pharmaceutical service standards.

## CONCLUSION

Based on the results of research that has been carried out at the Pharmaceutical Installation of the Garuda Health Center in Pekanbaru City, the average waiting time for non-concocted prescription services is 10.8 minutes and concocted prescriptions are 15.4 minutes. These two values have met the standards set in the Decree of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning Minimum Service Standards for Hospitals, namely  $\leq 30$  minutes for non-concocted prescriptions and  $\leq 60$  minutes for concocted prescriptions, and are in line with the principles of fast and quality clinical pharmacy services as mandated in the Regulation of the Minister of Health Number 26 of 2020 concerning Pharmaceutical Service Standards in Health Centers. Thus, it can be concluded that the services of concocted and non-concocted prescriptions at the Pharmacy Installation of the Garuda Health Center in Pekanbaru City are in accordance with the applicable pharmaceutical service standards.

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