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## Overview of Outpatient Patient Prescription Completeness in Pharmacy Installation of General Hospital Indonesia Christian University

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### Abstract

Medication errors are preventable and endangering events that still occur when patients receive treatment from healthcare professionals. One form of such error is incomplete prescriptions, which can have a negative impact on the effectiveness of therapy and patient safety. This phenomenon is commonly found in various healthcare facilities in Indonesia. **Methods:** This study aims to determine the completeness of outpatient prescriptions at the Pharmacy Installation of the Indonesian Christian University General Hospital (RSU UKI), especially from the administrative and pharmaceutical aspects. This study is a non-experimental retrospective descriptive study with a quantitative approach. Samples were taken randomly directly from outpatient prescriptions that entered the UKI Hospital Pharmacy Installation during the period October to December 2022. **Results:** From the evaluation results of the prescriptions studied, data was obtained that the level of completeness in the administrative aspect included: pro (patient and doctor identity) of 73.80%, inscriptio (health care facility identity) 92.85%, invocatio (symbol R/) 100%, and subscriptio (technical instructions for pharmacists) 79.77%. Meanwhile, in the pharmaceutical aspect, the level of completeness of the signatura (instructions for use for patients) reached 91.67% and prescriptio (medicine name, dosage, dosage form, and quantity) was 88.39%. **Conclusion:** The results of the study indicate that most outpatient prescriptions at the Pharmacy Installation of RSU UKI have met the standards of administrative and pharmaceutical completeness. However, there are still shortcomings in several components, especially in the pro and subscriptio sections. Efforts are needed to improve accuracy in writing prescriptions by medical personnel to minimize the risk of medication errors and improve patient safety.

**Keywords:** Administration Completeness of Prescription, Pharmaceutical, Completeness of Prescription, Medicine Prescription, Outpatients

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## INTRODUCTION

Rational drug use is a critical component in improving the quality of health services, especially in hospital settings. One indicator of rational drug use is the completeness of outpatient prescriptions. According to the World Health Organization (WHO, 2003), a prescription is said to be complete if it contains administrative, pharmaceutical, and clinical information that complies with national prescribing standards. Incomplete prescriptions can increase the risk of medication errors, delays in therapy, and decrease the quality of patient care. In Indonesia, prescription completeness remains a major concern in hospital pharmacy services. Based on a study (Hadi et al., 2019), incomplete prescriptions in several hospitals in Indonesia reached 28.7%, with the most frequent missing components being physician identity, patient diagnosis, and dosage instructions. Similarly, research by Wulandari et al. (2020) at a government hospital in East Java found that 35.4% of outpatient prescriptions did not meet administrative completeness criteria. As they are required for the majority of health initiatives, including preventive, promotive, curative, and rehabilitative ones, medicines play a critical role in health care (Amalia D.T, et al 2014; Asy'ary CN, et al, 2022). Inaccurate dosages, unintended medicine interactions, duplicate use, and antagonistic combinations are possible outcomes of human error in prescribing and patient assessment (Purwaningsih NS, et al, 2019). Medicine therapy is often reflected in prescription writing as the final act of consultation between a patient and a physician after the patient's history, diagnosis, and prognosis (Subagya, G, et al, 2021). Regulation of the Minister of Health of the Republic of Indonesia Number 72 of 2016 concerning Standards of

Pharmaceutical Services in Hospitals stipulates the minimum information required to write a valid prescription. Incomplete prescription administration can have a harmful effect on patients. First, prescription writing problems are a common root of pharmaceutical error problems. Medication errors can also occur during the prescribing phase (when the physician writes the prescription) and can have serious consequences for the patient (Subagya, G, et al, 2021). The Indonesian Ministry of Health has established clear regulations regarding prescription writing through Peraturan Menteri Kesehatan Republik Indonesia Nomor 74 Tahun 2016 tentang Standar Pelayanan Kefarmasian di Rumah Sakit, which mandates that every prescription must include essential elements such as patient identity, doctor identity, drug details, dosage, and usage instructions. Compliance with these standards is not only a legal obligation but also a key element in patient safety programs (Kemenkes RI, 2016). Several factors can influence prescription completeness, including prescriber workload, lack of awareness about prescription standards, and limited supervision by pharmacy staff (Susanti et al., 2021). Moreover, a study by Putri et al. (2022) at a private hospital in Jakarta highlighted that prescription errors were more common during peak service hours and among junior doctors. In the context of Rumah Sakit Umum Universitas Kristen Indonesia (RSU UKI), which serves a diverse population in East Jakarta, no previous study has specifically evaluated the level of outpatient prescription completeness in the pharmacy installation. Given the hospital's role as both a referral center and a teaching hospital, ensuring prescription completeness is essential for maintaining the quality of pharmaceutical care and minimizing medication errors.

According to the Regulation of the Minister of Health of the Republic of Indonesia Number 35 of 2014 concerning pharmaceutical service standards in pharmacies, medicine administration errors can be prevented (Megawatu F, et al, 2017; Djajanti AD, et al, 2022). Although the frequency of pharmaceutical errors in various health facilities in Indonesia is very high, the occurrence of these errors has not been documented accurately and consistently in Indonesia. According to a study, errors that occur when giving the wrong prescription or dosage to patients can reach 11% of pharmaceutical errors that occur in hospitals. Despite the fact that prescription errors often occur, patients rarely experience fatal injuries due to these errors (Oktarlina RZ, et al, 2017). The author wants to examine the completeness of outpatient prescriptions at the UKI General Hospital based on the context that has been presented. The research problem in this study is how the description of the completeness of outpatient prescriptions at UKI General Hospital is based on administrative and pharmaceutical aspects.

## RESEARCH METHODS

This research uses a descriptive quantitative method with a cross-sectional study design. According to Notoatmodjo (2010), descriptive research aims to systematically, factually, and accurately describe the facts and characteristics of a population or specific field. Meanwhile, the cross-sectional design allows data collection at a single point in time without follow-up, making it suitable for describing the current status of prescription completeness (Sastroasmoro & Ismael, 2014). Place and Time of Research This research was conducted at the Pharmacy Installation of the General Hospital of the Indonesian Christian University. August 2023 is the time this research will be carried out. Population The research population used was outpatient prescriptions that were admitted from October to December 2022 totaling 528 prescription sheets, then through the Simple Random Sampling technique used for sampling, and random selection calculated using the Slovin formula, a sample was obtained in the form of 84 prescription data that met the inclusion and exclusion criteria. Research instrument in this study uses outpatient prescriptions processed by the pharmacy of UKI Central General Hospital between October 2022 and December 2022 as the research instrument. Data processing techniques use a descriptive analysis approach with the aim of characterizing the research variables and not to test the correlation between these variables, test hypotheses, or draw conclusions.

The data obtained were analyzed by giving the number 1 to prescriptions that meet the completeness and the number 0 to prescriptions that do not meet the completeness. Then the data was processed using the Microsoft Excel application and the percentage of each part of the prescription completeness was obtained. The results obtained are presented in table form.

## RESULTS AND DISCUSSION

The research sample that meets the inclusion criteria, namely 84 outpatient prescription sheets based on the Slovin formula calculation from a total population of 528 prescription sheets collected at the Pharmacy Installation of the General Hospital of the Christian University of Indonesia. The samples obtained were analyzed for the completeness of the prescription based on administration and pharmaceutical.

### Overview of Prescription Completeness Based on Administration

Table 1. Completeness of Prescription Administration, Inscriptio Section

Inscriptio	Number of Recipes			
	There is		There isn't any	
	Frequency	Percentage	Frequency	Percentage
Doctor's Name	81	96.42	3	3.57
Doctor's Address	84	100	0	0
Doctor's Practice License Number/SIP	63	75	21	25
Prescription Date	84	100	0	0

Table 1 shows the results of filling outpatient prescriptions at the Pharmacy Installation of the Indonesian Christian University General Hospital. It was found that the aspect with the highest completeness was the doctor's address and prescription date, which was 100% (84 prescriptions) and the lowest completeness aspect was the doctor's SIP No., which was 75% (63 prescriptions).

Table 2 Completeness of Prescription Administration for Invocation Section

Section	Number of Recipes			
	There is		There isn't any	
	Frequency	Percentage	Frequency	Percentage
<b>Invocation</b>				
Symbol R	84	100	0	0
<b>Subscriptio</b>				
Doctor Initials	67	79.8	17	20.2
<b>Pro Section</b>				
Patient Name	84	100	0	0
Patient Age	71	84.5	13	15.5
Patient Gender	79	94.0	5	6
Patient Weight	14	16.7	70	83.3
<b>Prescriptio</b>				
Medicine Name	84	100	0	0
Medicine Dosage Form	65	77.4	19	22.6
Medicine Dosage Strength	64	76.2	20	23.8
Number of Medicine	84	100	0	0
<b>Signature</b>				
Rules for Using Medication	77	91.7	7	8.3

### Administrative Completeness Analysis of Prescription

In the inscriptio section, there is the doctor's name, address, SIP Number of the doctor and the date the prescription was written. The doctor's name is an important aspect in a prescription, if there

is an error or something unclear in writing the prescription, then the pharmacy officer in this case the pharmacist can contact the doctor concerned directly to clarify the prescription (Laksono S, et al, 2022; Hasanah SUD, et al, 2023). Some specialist doctors use a stamp containing the doctor's name and SIP number when writing the prescription. The SIP Number (Doctor's Practice License Number) needs to be included in the prescription to prove that the doctor is legally recognized in the practice of the medical profession (Desiani E, et al, 2023). On the prescription obtained, the doctor does not need to write the practice address, because the address of the Indonesian Christian University General Hospital is already on the prescription header. The doctor's address is useful for pharmacy personnel if there is any doubt so that they can easily contact the doctor (Megawati F., et al, 2017). To ensure patient safety during medicine collection, the prescription date is required. This allows pharmacy staff to determine whether the prescription can be filled or not, and if not, to recommend that the patient contact the relevant physician. There is an R mark on the medicine request section. The R mark does not need to be written manually by the doctor because it is included in the prescription paper format in the observed prescription. In a study conducted by Simbolon (2022) in Medan, the highest percentage of prescription completeness was found in the invocatio and subscriptio sections, which was (100%) and the completeness with the lowest numbers was inscriptio (68.4%) and pro (58.84%). This shows why the R mark of a written request from a doctor and the first correspondence between the doctor who issued the prescription and the pharmacist on duty are important components in a prescription (Simbolon LR, 2022). A doctor signs the subscriptio section. The doctor's signature on a prescription is very important because it functions as verification of the validity and accuracy of the document (Mukhlisah E., et al, 2019). However, in practice, doctors often do not initial the medicine prescription, which can be caused by serving too many patients.

Patient name, age, gender, and weight are some of the details included in the pro section. To prevent medication errors, patient data is very important in the prescription writing process. This information can be used as a differentiator when the patient's name is similar. In the results obtained, age and weight had the lowest completeness rates, it is clear that there are some doctors who are not aware of the importance of writing the patient's age and weight (Yusuf A, et al, 2020). The rational choice of medicine dosage and dosage form is determined by the patient's age and weight. The dosage given to children is naturally different from that given to adults, if the pharmacist dispenses the medicine without knowing the patient's age, there is a possibility of giving the adult dose to children incorrectly and vice versa, which can lead to therapeutic failure or excessive doses that cause toxicity (Admassie E, et al, 2013; Qomariyah N, et al, 2023). Therefore, both aspects need to be included in the prescription to avoid this from happening.

### **Analysis of Pharmaceutical Completeness of Prescription**

The medicine name, dosage form, dosage strength, and quantity are all listed in the prescription section. Because many medicines have the same spelling or writing, it is very important to record the medicine name and dosage during the prescription writing procedure to avoid errors when dispensing the medicine. In addition, because some medicines have multiple dosage strengths, the dosage strength must be explicitly stated to prevent errors in administering the medicine. Failure to record the dosage strength of the medicine can lead to inappropriate use of the medicine (Bhosale MS, et al, 2013). This study found that doctors were inconsistent in writing the dosage form and strength of the medicine, but pharmacists would confirm if there was any missing information.

The signature section contains the rules for use of the medicine used in the treatment. Writing the medicine signature before the patient receives it is an important step to ensure that the medicine is used safely and effectively (Risky RV, 2020). In contrast to Purba's (2020) study in Medan, where the percentage of the prescription section was (100%) and the signature was (99.71%), the study showed that the level of completeness of the prescription section was (88.39%) and the signature was (91.67%). These medicine use rules affect the accuracy of medicine use by patients and can cause errors in treatment (Purba R, 2019)

Due to incomplete prescriptions, prescription services at the Pharmacy Installation of the Indonesian Christian University General Hospital have begun to switch to using electronic prescriptions as an effort to improve the quality of prescription services to patients

## CONCLUSION

The completeness of outpatient prescriptions in this study is presented below, based on the data obtained: 1) Administratively (Outpatient prescriptions in the period October-December 2022 at the Pharmacy Installation of the Indonesian Christian University General Hospital that met the completeness of prescriptions administratively, namely inscriptio 92.85%, invocatio 100%, subscriptio 79.77%, and pro 73.80%' 2) Pharmaceutically (Outpatient prescriptions in the period October-December 2022 at the Pharmacy Installation of the Indonesian Christian University General Hospital that met the completeness of prescriptions pharmaceutically, namely prescriptio 88.39% and signatura 91.67%)

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