

Drug Storage Profile at the Lapandewa Health Center, South Buton Regency in 2024

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ABSTRACT

Background Good drug storage is an important aspect in ensuring the quality and availability of drugs in health care facilities. **The purpose** of this study is to determine the drug storage profile at the Lapandewa Health Center, South Buton Regency in 2024 based on pharmaceutical standards. **Method** The type of research used is a descriptive survey with an observational quantitative approach. The respondents in this study were four people, consisting of two pharmacists and two pharmaceutical technical personnel, with an instrument in the form of a checklist. **The results** showed that the requirements for the drug warehouse were in the very good category with a value of 85%, the drug storage system was in the very good category with a percentage of 100%, and the drug stock card recording system was also in the very good category with 83%. These results illustrate that in general, the storage of drugs at the Lapandewa Health Center has met most of the standard indicators of pharmaceuticals, although there are still shortcomings in the aspect of routine recording and the physical condition of the warehouse that needs improvement. Therefore, efforts are needed to improve the discipline of daily recording and improve physical facilities to support the smooth management of drugs. **Conclusion** This research is expected to be an evaluation and reference material in improving drug management at the Lapandewa Health Center.

Background: Drug storage according to pharmaceutical standards plays a vital role in maintaining the quality, safety, and availability of medicines in healthcare facilities. **Objective** This study aimed to identify and evaluate the drug storage profile at Lapandewa Community Health Center, South Buton Regency, in 2024. **Method** A descriptive survey design with a quantitative observational approach was applied. Data were collected using an observation checklist and brief interviews with four respondents, consisting of two pharmacists and two pharmaceutical technicians. The results revealed that drug warehouse requirements were categorized as excellent with a score of 85%, the drug storage system achieved 100% in the excellent category, and the stock card recording system reached 83% in the excellent category. Overall, drug storage at Lapandewa Community Health Center met most pharmaceutical standards, although some shortcomings were found in routine recording practices and the physical condition of the storage room. Therefore, strengthening daily recording discipline, implementing continuous supervision, and improving storage facilities are essential steps to enhance compliance with pharmaceutical standards. This study is expected to serve as an evaluation tool as well as a reference for optimizing drug management at the community health center level, thereby supporting better quality of healthcare services for the community.

INTRODUCTION

Drugs are a vital component in public health service efforts. The availability of good drug quality greatly determines the success of therapy and the quality of health facility services. Health is a human right that must be realized by providing appropriate health services for the entire community through comprehensive health development efforts by the government and local governments that are directed, sustainable, fair, and equitable, as well as safe, high-quality, and affordable for the community (Mukhlis, 2022). Regulation of the Minister of Health of the Republic of Indonesia Number 74 of 2016 concerning Pharmaceutical Service Standards in Public Health Centers states that pharmaceutical services in public

health centers are an integral part of the overall service of the implementation of health efforts that play an important role

in improving the quality of health services for the community. Pharmaceutical services at the People's Health Center are required to support the three primary functions of the People's Health Center, namely being a health development center, a community empowerment center, and the main health service center, which includes individual health services and people's health services (Rahmah *et al.*, 2024).

Puskesmas is a health facility that provides public health services and individual health services, with a focus on promotion and prevention efforts, in order to achieve the highest level of public health in its work area. In addition, Puskesmas is a functional organization that provides health services that are comprehensive, integrated, fair, affordable, and easily accessible to residents. The work of the Health Center is very important in supporting the performance of health forums in terms of prevention and control of public health. In an effort to improve the quality of health services at the Puskesmas level, in particular, a good concept or system is needed so that high-quality, effective, and efficient health services can be realized and the performance of the Puskesmas itself can be improved (Nurlina *et al.*, 2022).

One of the crucial aspects of drug management in residents' health centers is storage. The proper storage of medicines must meet the requirements set to maintain guaranteed quality and avoid chemical and physical damage. Some considerations in storing drugs in pharmaceutical facilities include the form and type of drugs, stability, whether the drugs are explosive/practically flammable, and narcotic and psychotropic drugs stored in special cabinets. The purpose of storing drugs is to maintain the quality of drugs available in health service units (Iteke, 2020). Drug storage is an activity and effort to manage inventory so that quality can be maintained, goods are protected from physical damage, goods can be found practically and quickly, goods are protected from theft, and inventory monitoring becomes easier (Marbun *et al.*, 2022). The management of medicines carried out at the Pharmacy of the Regional Technical Service Unit (UPTD) of the Puskesmas is under the responsibility of pharmaceutical technical personnel, and currently there are no pharmacists available. In addition, the Ministry of Health of the Republic of Indonesia has issued new technical guidelines regarding Pharmaceutical Service Standards in Health Centers, and research has not been conducted at UPTD Puskesmas Pharmacies. Therefore, it is necessary to conduct research (Ranti, 2021).

Medicines must be stored in the right place and in accordance with applicable regulations so that their quality is guaranteed and protected from physical and chemical damage. Drug storage includes the process from receiving drugs to delivery to service units in public health centers (Febriyoldini *et al.*, 2024). Some examples of appropriate drug storage such as using *the First Expired Date First Out* (FEFO) and *First In First Out* (FIFO) methods, some preparations are stored in special cabinets such as narcotic and psychotropic drugs. In addition, there must be a refrigerator with a controlled temperature. to store preparations or medicines in the form of vaccines or suppositories. Another thing that must be considered to prevent damage to medicines is that these medicines are stored in pharmacy warehouses on open shelves so that they do not come into direct contact with the floor (Ministry of Health of the Republic of Indonesia, 2019). The management of pharmaceutical preparations at the Puskesmas requires recording on the drug stock card, this is very important so that the management of medicines is carried out in an orderly manner. Every drug that enters and leaves must be recorded on a stock card along with its expiration date (Waluya *et al.*, 2023). Over-the-counter drugs are drugs that are sold over-the-counter on the market and can be purchased without a doctor's prescription (Alida *et al.*, 2023). Over-the-counter drugs are drugs that can be purchased over-the-counter without a doctor's prescription, but have specific warnings when to use them (Toyib *et al.*, 2024). Psychotropic drugs are a type of drug that can hypnotize a person's brain function, perception, thoughts, consciousness, mood, emotions, and behavior. Psychotropics are a type of substance or drug that can affect the work of the central nervous system so that it can change a person's behavior, nature, and health conditions (Ernawaty *et al.*, 2023). Narcotic drugs are substances or drugs of plant or non-plant origin, both synthetic and semi-synthetic, that can cause a decrease or change in consciousness, loss of sensation, reduction or loss of pain, and can lead to dependence. They are classified into categories governed by law (Trian *et al.*, 2024). Hard drugs are drugs that can only be purchased using a doctor's prescription For example: the antibiotic amoxsicilin (Zidna *et al.*, 2024).

Previous research conducted by Marbun (2022) entitled Drug storage profile at the Sindang health center in Rejang Lebong Regency, Bengkulu province, stated that

The practice of medicine places at the health center has not fully met the standards set by the Ministry of Health. Meanwhile, previous research by Warani (2024) showed that the storage space and process of drugs have met the set standards. However, there are several aspects such as controlling the temperature and humidity of the room and arranging medications. Meanwhile, other research at the Lapandewa health center also often shows that there is an excess of stock and dead stock of medicines. If medicines and medical supplies are used properly in accordance with the set standards, shortages or excess stocks can be reduced, so that there is always enough medicine or a safe level of stock to meet the needs (Abdul R, 2017).

METHOD

This research was conducted using quantitative method research. The type of research aimed at narrative surveys is to describe the actual situation according to the data and coverage found in the field.

RESULTS & DISCUSSION

Table 1. Observation results and *observation checklist* at the Lapandewa Health Center

Yes	Research Indicators	Answer		Information
		Yes	Not	
1.	Is there a warehouse with a minimum area of 3x4 M	√		Sync
2.	Is there a system to monitor the temperature and Humidity Medication Storage Chamber	√		Sync
3.	Are the walls made smooth		√	Out of sync
4.	Is the Warehouse Key controlled by the pharmacist in charge and other controlled officers.	√		Sync
5.	Is there a way to separate the drugs that require special storage	√		Sync
6.	Is There A Fire Extinguisher	√		Sync
7.	Whether room temperature can guarantee the stability of the drug	√		Sync
Total		6	1	

Source : Research Results 2025

Percentage Formula: $\% = \frac{6}{7} \times 100\% = 85\%$

Based on the results of observations and *observation checklists* at the Lapandewa Health Center, the drug storage warehouse is in the very good category with a percentage of 85%.

In the table above, the requirements of the drug warehouse are in the very good category using a percentage of 85%. Of the 6 parameters for assessing the requirements of the drug warehouse, there are six parameters that have been appropriated, including the requirement for a drug warehouse, there is a warehouse with a minimum area of 3x4 m² to ensure adequate storage capacity, there is a system to monitor the temperature and humidity of the drug storage room to maintain the stability and quality of the drug, the walls are made slippery, the health center separates drugs that require special storage, There is a fire extinguisher and room temperature can ensure the stability of the drug, the warehouse key is controlled by the pharmacist in charge and other employees who are in charge to maintain security and supervision of the entry and exit of drugs. So, one parameter that does not meet the requirements of the drug warehouse is that the walls are not made slippery. From the results of the interview, the respondents stated that the warehouse had met most of the technical requirements. However, budget limitations are the main reason why renovations have not been carried out on the walls of the warehouse to meet the standards. So, when the paint used in the drug storage warehouse at the Lapandewa Health Center was observed, oil paint was not used.

Table 2. Observation results and observation checklist at the Lapandewa Health Center

Yes	Research Indicators	Answer:		Information
		Yes	Not	
1.	Are the drugs arranged alphabetically for each form of preparation	√		Sync
2.	Is a drug that looks and names similar to LASA <i>Look Alike Sound Alike</i> not located nearby	√		Sync
3.	Whether the drug is rotated to FEFO standards or FIFO	√		Sync
4.	Does it come with a stock card	√		Sync
5.	Do Use a special cabinet for storing Dosage narcotic and Psychotropic	√		Sync
6.	Are liquids, ointments and injectable drugs stored in the center of the shelf.	√		Sync
7.	Is the Drug Stock Arrangement Done by using cabinets, shelves and pallets.	√		Sync
Total		7	0	

Source : Research Results 2025

Percentage Formula: $\% = \frac{7}{7} \times 100\% = 100$

According to observations and observation checklists at the Lapandewa Health Center, the drug storage system is in the very good category with a percentage of 100%.

The drug storage system is in the very good category with a percentage of 100% there are seven parameters that are synchronized, namely, having applied drugs arranged alphabetically for each form of preparation is very important to facilitate the search and speed up service, drugs that look and name similar to LASA Look Alike Sound Alike are not placed close together to prevent errors in taking or gifting drugs, drugs are rotated with the FEFO and FIFO systems to ensure that drugs with a shorter shelf life are used first, equipped with a stock card to record the number of incomings, the number of outgoing and remaining stocks, using a specific cabinet to store narcotics and psychotropic preparations, liquids, ointments and injectable drugs are stored in the middle of the shelf and drug stock management is carried out using a cabinet, shelves and pallets to make the arrangement neater, organized and easier to supervise. From the results of the interview, the respondents stated that they had implemented the storage SOPs, as well as direct supervision by pharmacists to maintain accuracy and efficiency in the arrangement of drugs.

Table 3. Results of observations and observation checklist at the Lapandewa Health Center

Yes	Research Indicators	Answer:		Information
		Yes	Not	
1.	Is the stock card used to record drug mutations (receipts, expenses, losses, Broken and Broken)	√		Sync
2.	Is the recording in the warehouse done with Original day-to-day routine		√	Out of sync
3.	Whether the stock card is placed together or adjacent to the drug concerned	√		Sync
4.	Is the stock card recorded at the time of receipt and dispensing of the drug	√		Sync
5.	Whether Each sheet stump stock only	√		Sync
6.	It is intended to record the mutation data of one type of drug from one source Whether the Data on the stock card is used to compile reports, planning, procurement and drug distribution.	√		Sync
Total		5	1	

Source : Research Results 2025

Percentage Formula: $\% = \frac{5}{6} \times 100\% = 83$

Based on what will happen, observations and observation checklists at the Lapandewa Health Center, the stock card recording system is in the very good category with a percentage of 83%. The stock card recording system is in the very good category with a percentage of 83% there are 5 parameters that have been synchronized, namely, stock cards are used to record drug mutations (receipt, expense, lost, damaged and expired). To ensure the accuracy of inventory data, stock cards are placed at the same time or close to each other using the drug in question to maintain the availability and accuracy of drug stock information. Each lbr of stock is only used to record mutation data of one type of drug that comes from one source to maintain order and ease in tracking the origin and convoy of drugs. Stock cards are recorded at the time of receipt and dispensing of medicines, to reflect modern stock conditions and to avoid data discrepancies. The data on the stock card is used to compile reports, planning, procurement, and distribution of drugs. So, one parameter that is not synchronized using a stock card recording system is that recording in the warehouse is carried out routinely from day to day due to the result of a combination of internal and HR factors and external systems, SOPs and supervision. So, SOPs and supervision already exist, but they have not run optimally. Because it shows that there is no disciplined implementation of fixed procedures. In order for the stock card recording system to be more optimal and routinely carried out every day, structured SOPs, continuous supervision, proper human resource training and managerial commitment are needed. With these steps, the discipline of recording will increase and inventory data will be accurate, thus supporting the smooth running of pharmaceutical services at the health center. So, the system is said to be excellent because it has met most of the 83% important indicators as well as showing practices that reflect the correct understanding and application of the principles of drug management. However, there is still one shortcoming that needs to be fixed in order to achieve the perfect or ideal category 100%.

COVER

Based on the results of observation and analysis of drug storage at the Lapandewa Health Center, South Buton Regency in 2024, it can be concluded that the requirements for drug warehouses at the Lapandewa Health Center are in the very good category with a percentage of 85%, the drug storage system at the Lapandewa Health Center is in the very good category with a percentage of 100% and the stock storage system is in the very good category with a percentage of 83%. it is in accordance with the law of the Minister of Health number 74 of 2016.

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