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Original Research Report

Evaluation of Pharmaceutical Services at Pharmacy X Based on the Regulation of the Minister of Health Number 73 of 2016

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Abstract: Pharmaceutical services are crucial in enhancing individuals' quality of life. Pharmacies must adhere to and apply the standard pharmaceutical services outlined in the Minister of Health Regulation Number 73 of 2016. Standard Pharmaceutical services still cannot be implemented perfectly in society, which impacts people's quality of life. This research provides relevant information for policy-making in the health sector and encourages the improvement of the quality of pharmaceutical services in the future. Pharmacy X has been established for 13 years and is in the middle of the market. Pharmacy X is also close to the Kapuas River. Both factors make Pharmacy X easily accessible to the community. This study aims to evaluate pharmaceutical services at Pharmacy X, Kapuas City. The method used in this research was qualitative, with direct observation and interview. This method was used to obtain results regarding the evaluation of pharmaceutical services. The results showed that Pharmacy X had already implemented standard pharmaceutical services. Nonetheless, it would be better if Pharmacy X had a counseling room that was large enough. Pharmacy X has played a role in enhancing the safety and efficacy of drug therapy for patients. In the future, enhancing technology-driven services and improving community access may serve as a priority to elevate the standard of pharmaceutical services. The professional practice of pharmacists in Indonesia is necessary to protect patients from inappropriate services. If pharmaceutical service standards are not implemented properly, there is a risk of endangering patient safety and increasing inequalities in access to health services.

Keywords: Compliance, Health Regulation, Minister of Health Regulation Number 73 of 2016, Pharmaceutical Services, Pharmacy.

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1. Introduction

Pharmaceutical services in pharmacies play important role in ensuring the quality, benefits, safety, and efficacy of pharmaceutical preparations and medical devices. Pharmaceutical services also aim to protect patients and the public from irrational use of drugs in the context of patient safety [1]. The government issued health regulation no. 73 of 2016 concerning standard pharmaceutical services in pharmacies. Standard pharmaceutical services in pharmacies are implemented as practice guidelines for the pharmacist profession in carrying out pharmaceutical practices and to protect patients from services that are not by the patient's requirements [2].

Pharmaceutical services must be supported by human resources, facilities, and equipment to improve treatment outcomes and minimize the risk of adverse drug reactions from a patient safety perspective. Management activities are a continuous cycle of activities starting from planning, procurement, receipt, storage, distribution, service and management of pharmaceutical service activities [1].

Clinical pharmacy services are direct services provided by pharmacies to patients to improve treatment outcomes and minimize the risk of side effects, including assessment and prescribing services, tracing medication history, medication mediation, drug information services (PIO), counseling, visits, medication tracking (PTO), monitoring of drug side effects (MESO), home pharmacy care. Pharmaceutical services are not a new concept in health services, but the introduction and development of pharmaceutical services in primary health services, in this case pharmacies, has its challenges. The policies that support its implementation have undergone several changes to support the implementation of ideal standard services [1].

Based on Minister of Health Regulation No. 73 of 2016, it is stated that pharmaceutical services have changed from drug-oriented to patient-oriented which aims to improve the quality of life of patients. Quality service can reduce the risk of errors in medication and meet the needs and demands of the community so that the public can give a good impression of the pharmacy, especially in terms of services, availability of needed drugs, and maintaining drug quality [3].

Previous research on drug procurement in Surabaya stated that 69.2% of the quantities and types of drugs received did not match those requested. This procurement is to prevent excess stock and avoid waste, drug procurement is also based on the drug selected and available financial resources. Determine the type and amount of medication based on disease patterns, seasonal variations or recurrences in disease patterns, drug consumption levels, and delivery times [4].

Previous research also stated that an appropriate and good storage system will be one of the determining factors in the quality of medicines distributed. Drug storage is an inseparable part of Pharmacy in Hospitals, adding that the storage of pharmaceutical preparations, medical devices, and consumable medical materials whose appearance and name are similar to LASA (Look Alike Sound Alike) are not placed close together and must be given special funding to prevent medication taking errors [5].

Research conducted in pharmacies X City Mataram stated that Pharmacy City Mataram has not yet fully implemented clinical pharmacy services at the pharmacy where counseling rooms are not yet available, due to limited pharmacy buildings and the absence of patients who require counseling within a certain period [6].

The Kapuas city is located near the intersection of the South Kalimantan Trans Road that connects the cities of Palangkaraya and Banjarmasin so that the city of Kuala Kapuas is used as a commercial and service center for the Kapuas region as well as a government service center. This of course also has an impact on the need for better and healthier housing land and urban infrastructure. Apotek X has been established since 2012 and is located in the middle of the market. It is also close to the Kapuas River. Both factors make Apotek X easily accessible to the community [7]. The previous factor suggests that there are still many pharmacies that are not compliant with standard pharmaceutical services. Therefore, researchers are interested in discussing further the evaluation of pharmaceutical services at Pharmacy X.

2. Literature Review

A Pharmacy is a pharmaceutical service facility where pharmacists provide pharmaceutical services, which include managerial and clinical activities. Proper storage of medications according to established standards is a key factor in drug quality assurance [8]. The scope of the Minister of Health Regulation No. 73 of 2016 concerning Pharmaceutical Service Standards in Pharmacies article 3 paragraph 1 states that the standard of pharmaceutical services carried out in pharmacies includes 2

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activities, namely: Management of Pharmaceutical Supplies and Consumable Medical Materials, and Clinical Pharmacy Services.

Management of Pharmaceutical Supplies and Consumable Medical Materials is one of the pharmaceutical service activities, which starts from planning, requesting, receiving, storing, distributing, controlling, recording, and reporting as well as monitoring and evaluation. The purpose of managing pharmaceutical supplies and consumable medical materials is to ensure their availability, affordability, and efficient use. Clinical pharmacy services are part of pharmaceutical services that are directly and responsibly provided to patients about drugs and to achieve definite results to improve the quality of life of patients [9].

3. Methodology

This research is a type of qualitative research. The data collection method carried out in this research is in the form of unstructured interviews and direct observation so that in this study using observation sheets to collect data. Qualitative methods allow researchers to gain a deeper understanding of the experiences, views, and perceptions of individuals, as well as provide flexibility in exploring the various factors that influence standard pharmaceutical services. The tools used in this research were stationery, worksheets for observation, a camera, and technical instructions for Pharmaceutical Service Standards in Pharmacies. The materials used were observation sheets and interviews. Data analysis was carried out to compare the real conditions of Pharmacy X with those related to Minister of Health Regulation Number 73 of 2016.

4. Finding and Discussion

Table 1 shows the evaluation status of Pharmacy X in Kapuas.

Table 1. Checklist Results of Pharmacy X in Kapuas

Categories	Evaluation	
	In accordance	It is not in accordance
Management of Pharmaceutical Preparations and Consumables		
Planning	√	
Procurement	√	
Reception	√	
Storage	√	
Destruction and Withdrawal	√	
Control	√	
Recording and Reporting	√	
Clinical Pharmacy Services		
Assessment and Prescription Services	√	
Drug Information Service (PIO)	√	
Counseling	√	
Dispensing	√	
Monitoring Drug Side Effects (MESO)	√	
Drug Therapy Monitoring (PTO)	√	
Pharmacy services at home *(Home Pharmacy Care)*	√	

1) Planning

Medication planning is an important aspect intended to determine the type and quantity of medicines to meet service needs at the pharmacy. Another goal is to increase the rational use of drugs and to improve the efficiency of drug use [10].

Planning is a drug selection activity in determining the number and type of drugs to meet the needs for pharmaceutical preparations in the pharmacy with the right selection to achieve the right quantity, right type and efficiency. Drug planning is carried out to improve efficiency use of drugs, increase the rational use of drugs, and estimate the type and number of drugs needed [11].

The informant said,

> "The consumption pattern is usually because it is easy to control stock based on sales records."

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This statement is supported by the fact this method assumes that the drug is used trend the same and the continuous number of drugs prescribed will also be closely related to the volume of patient visits [12].

The informant also added,

> "… if we want to order, we usually look at the safety stock, average usage, ABC category, and lead time for the medicine and then calculate the quantity ordered".

These results are also appropriate where the method calculation needs to consider several factors, including minimum stock amount, average daily usage, and maximum average usage per day taking into account lead time drug. Apart from that, ABC analysis makes management focus more on items that have critical value and higher use so they can be handled more efficiently [13]. Thus, the planning at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

2) Procurement

The procurement process plays an important role in the continuity of hospital services and guarantees the availability of medicines whenever they are needed [13]. Procurement of Pharmaceutical Preparations, Medical Devices, and BMHP at Clinics is carried out by purchase. Purchasing is an important method for achieving the right balance between quality and price [14].

The informant said,

> "We always order via Pharmacy Wholesaler, when ordering we always use the application first".

This statement is supported by the fact that the consumption method used to determine the number of drugs needed is based on the consumption or use of drugs in a health facility during a certain period [12].

The informant added,

> "To order medicine and medical equipment, we use an order letter if a regular order letter is only 1 copy, certain drugs (OOT), Psychotropics, Precursor and Narcotics are only 3 copies, according to applicable law".

This statement is by applicable laws and regulations where the procurement of Pharmaceutical Preparations for Pharmaceutical Services is carried out based on an order letter signed by the Pharmacist and including the SIPA number [14]. In addition, orders for narcotics, psychotropics, precursors, and certain drugs (OOT) must be made in at least 3 copies [15].

3) Reception

Acceptance is an activity to ensure the suitability of the type of specifications, quantity, quality, delivery time, and price stated in the order letter with the physical conditions received [1].

The informant stated,

> "Receiving medicines here is to check the conformity of the medicines that arrive according to the invoice, also check the name of the medicine, dosage, quantity, ED, after checking it is then stored. In the past, it happened that the goods arrived as we ordered, but the invoice was from another pharmacy".

The informant stated,

> "When the goods arrive late and the pharmacy is out of stock, the pharmacist will try to substitute another drug with the same indication."

This aims to continue to serve patients according to the patient's disease indication even though the goods arrive late.

The results of this research are supported by goods-receiving activities at the Ashura Medika

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Pharmacy. Acceptance of goods carried out by Ashura Medika Pharmacy aims to ensure that the goods received are checked according to the condition of the goods, order letter, and invoice. In the process of receiving goods, check the type of goods, quantity, no batch, and the expiration date. Pharmacy staff at Ashura Medika Pharmacy also check orders and goods received. To avoid errors if the goods received do not match the order [16]. Thus, acceptance at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

4) Storage

Storage is an activity to secure the medicines received so that they are safe (not lost), protected from physical and chemical damage, and their quality is maintained. Inappropriate storage processes have the potential to reduce the quality of pharmaceutical preparations due to damage or expiration [17]. Apart from that, drug storage is a component of drug management that is useful for maintaining supplies, avoiding irresponsible use of drugs, making it easier to search and monitor, optimizing stock, and informing about future drug needs and risks to reduce losses [18].

The informant said,

> "Drug storage is arranged alphabetically, dosage form and drug class as well. If it's OTC medicine, put it in the front, if it's hard medicine, put it in the back where the patient can't see it".

Storage in pharmacy X refers to the standard of pharmaceutical services in pharmacies.

Pharmacy X uses the method First Expired First Out (FEFO) for distribution methods to patients. Items with the closest expiry date must go out first. This method is usually applied to pharmacies or retail stores that sell food and drinks (usually in packaging) that have an expiration date. Medicines with the closest expiry date are items that must be sold first. Products with a short expiration date will be placed in the front position to be taken first. Meanwhile, products with a long expiry date can be stored in warehouses so as not to result in a buildup of stock and lots of expired goods [19]. Thus, the planning at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

5) Destruction and Withdrawal

Destruction and withdrawal at pharmacies based on Minister of Health Regulation Number 73 of 2016 includes:

Drugs expired or damaged must be destroyed according to the type and dosage form. Drug Destruction expired or damaged ones containing narcotics or psychotropic substances are administered by a pharmacist and witnessed by the District/City Health Service. The destruction of medicines other than narcotics and psychotropic substances is carried out by a pharmacist and witnessed by other pharmaceutical personnel who have a practice license or work permit. Destruction is proven by an annihilation report using Form 1 as attached.

Recipes that have been stored for more than a period of 5 years may be destroyed. The destruction of prescriptions is carried out by the Pharmacist witnessed by at least another officer at the Pharmacy by burning or other means of destruction as evidenced by the Minutes of Prescription Destruction using Form 2 as attached and then reported to the district/city health office. Destruction and withdrawal of Pharmaceutical Preparations and Consumable Medical Materials that cannot be used must be carried out in a manner that complies with the provisions of statutory regulations. Withdrawal of non-compliant pharmaceutical preparations standard/ provisions of statutory regulations is carried out by the distribution permit holder based on a withdrawal order by BPOM (mandatory recall) or based on voluntary initiation by the marketing authorization holder (voluntary recall) while still providing reports to the Head of BPOM. Withdrawal of Medical Devices and Consumable Medical Materials is carried out for products whose distribution permits have been revoked by the Minister.

The informant stated,

> "Here (Pharmacy In that case, it is usually burned, Narcotic and psychotropic drugs have never been destroyed because stock always runs out before ED".

The purpose of destruction is to protect the public from the dangers of medicines or health supplies

International Journal of Clinical Inventions and Medical Sciences, vol. 7, no. 1, pp. 32-41, March 2025. **DOI: 10.36079/lamintang.ijcims-0701.808**

that do not meet the quality requirements for safety and usefulness, apart from that, destruction also aims to avoid costs such as costs for storing, maintaining and looking after medicines that are no longer suitable for preservation [20].

The informant added,

> "… regarding withdrawals, usually if there is a withdrawal letter from pharmacy wholesaler, there was a withdrawal of the syrup preparation which went viral due to kidney failure in the child. Before it is withdrawn, the syrup medicine is collected in one place, then it will be taken by the pharmacy wholesaler".

Pharmacy Thus, destruction and withdrawal at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

6) Control

Control is carried out to maintain the type and quantity of inventory according to service needs by avoiding excesses, shortages, vacancies, damage, expiration, loss, and returns of orders [1].

The informant stated,

> "... regarding control, we usually do SO (Stock Take). At least once a month".

The pharmacist's statement is supported by that Stock recording The aim is to ensure that drug supplies in the storage warehouse do not cause discrepancies between the stock cards and the physical quantity of drugs so that the results of stock recording The recording data must match the amount of physical stock in the storage warehouse. If there is a discrepancy, analysis is immediately carried out to find out the error [21]. Thus, control at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

7) Recording and Reporting

Recording is carried out in every process of managing Pharmaceutical Supplies, Medical Devices and Consumable Medical Materials including procurement (order letters, invoices), storage (stock cards), delivery (sales notes or receipts) and other records adjusted to needs [1].

The informant stated,

> "Recording at the pharmacy is from ordering goods, then goods arriving, sales, prescriptions, stock amount, defect book. The registration is through the Digital Pharmacy system".

Record keeping at pharmacy Research shows that recording activities are able to identify and improve the performance of pharmacies or related agencies [22]. With guidelines, recording is carried out in every pharmaceutical preparation management process.

Medical devices and consumable medical materials include procurement (order letter, invoice), storage (stock card), delivery (sales note or receipt), and other records according to pharmacy needs. Recording can include the name of the drug or pharmaceutical ingredient, dosage form and strength of the drug or pharmaceutical preparation, quantity of preparation, date of receipt, document number and origin of receipt, amount received, expiry number, batch number, and so on.

The reporting contained in Pharmacy X is used for pharmacy management needs, including financial, goods, and other reports.

The informant stated,

> "… usually, the SIPNAP report is done before the 10th of each month because this pharmacy has narcotic drugs."

Currently available reporting systems include SIPNAP (Narcotics and Psychotropics Reporting System) which was developed by the Ministry of Health of the Republic of Indonesia to report the use of narcotics and psychotropics in Indonesia. Thus, recording and reporting at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

International Journal of Clinical Inventions and Medical Sciences, vol. 7, no. 1, pp. 32-41, March 2025. **DOI: 10.36079/lamintang.ijcims-0701.808**

8) Assessment and Prescription Services

Pharmacy X accepts prescription services because there is a Pharmacist in Charge of Pharmacy.

The informant stated,

" Yes, this pharmacy accepts prescriptions, there are also practicing doctors so they will definitely serve prescriptions".

Review and prescription services at Pharmacy X following Minister of Health Regulation number 73 of 2016 include:

1. patient name, age, gender and weight
2. doctor's name, Practice License number (SIP), address, telephone number and initials, and
3. date of writing the recipe.

Pharmaceutical conformity studies include:

1. dosage form and strength
2. stability, and
3. compatibility (drug mixability).

Clinical considerations include:

1. accuracy of indications and drug dosage
2. rules, methods and duration of drug use
3. duplication and/or polypharmacy
4. undesirable drug reactions (allergies, drug side effects, other clinical manifestations)
5. contraindications, and
6. interaction.

Pharmacy X will screen the prescription first to ensure that the prescription received is a genuine prescription. In addition, prescription screening aims to minimize Medication Error and Pharmacists anticipate that there will be errors in writing prescriptions so it is necessary to monitor prescriptions in order to prevent and find solutions to prescription problems [23]. Thus, the Prescription Reception and Service activities at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

9) Dispensing

Pharmacy X does dispense at Pharmacy X.

The informant stated,

" There must be dispensing".

Activity Dispensing aims to prepare medicines to be given to patients, either by prescription or self-medication. Pharmacy X prescribes drugs using a computerized system to guarantee the process dispensing is correct. The role of pharmacists in implementing pharmaceutical standards in prescription services, especially providing complete and clear drug information, will reduce the risk of this occurring medication error, increasing the success of therapy, maximizing therapeutic effects, and minimizing side effects [24]. Thus, activities Dispensing at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

10) Drug Information Service

Drug Information Services (PIO) are activities carried out by pharmacists to provide information about drugs that is impartial, critically evaluated, and with the best evidence in all aspects of drug use to other health professionals, patients, or the public. Information regarding medicines including prescription medicines, over-the-counter medicines, and herbal medicines [1].

The informant stated,

" We also do PIO, usually patients ask questions like how long to keep the ear drops."

Information services regarding drugs are a method of face-to-face medication education and an

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effort to increase knowledge and medication compliance for pharmacy visitors [24]. Thus, the Drug Information Service activities at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

11) Counseling

Counseling is one of the important tasks that needs to be carried out by pharmacists in carrying out pharmaceutical services. The two main goals of counseling are to provide education to patients regarding the current treatment carried out and to maintain and improve patient compliance in using their medication [25].

The informant stated,

> "… There must be counseling because there are many old or elderly people who frequently seek treatment, so they will be counseled".

Some of the criteria for patients who need counseling are elderly patients, patients on long-term therapy, patients using narrow therapeutic index drugs, patients on high doses, tapering down/up, patients with polypharmacy, and low levels of compliance. Based on observations, the counseling room at Pharmacy X is quite narrow, making it less than optimal in providing counseling services to patients. The limited space hinders comfort and confidentiality. This has the potential to reduce the effectiveness of communication between pharmacists and patients and limits the space for pharmacists to explain drug information in more detail. With limited space, patients may not feel comfortable asking questions or having open discussions about their health conditions and medication use. Thus, counseling activities at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

12) Home Pharmacy Care

Pharmacists as service providers are also expected to be able to provide pharmaceutical services in the form of home visits, especially for the elderly and patients undergoing treatment for other chronic diseases. Service Home Pharmacy Care is a health service provided by pharmacists to patients to increase the success of therapy and patient compliance in taking medicines [26].

The informant stated,

> "Here (Pharmacy Just let me (the pharmacist) help."

The informant also added,

> "... usually we just use WhatsApp, rarely call credit".

This explains that social media today is an effective, efficient, and transparent communication medium and also has a very important function as an agent of change and renewal. Social media is a link in processing the transition from traditional society to modern society, where social media is used by individuals to become social creatures who can share content, news, photos, and so on with other people [27]. Thus, activities of Home Pharmacy Care at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

13) Monitoring Drug Side Effects

Monitoring of Drug Side Effects (MESO) is the activity of monitoring every adverse or unexpected response to a drug that occurs at normal doses used in humans for prophylaxis, diagnosis, and therapy or modifying physiological function.

The informant stated,

> "Here (Pharmacy X) there are also MESO and Naranjo's Algorithm sheets. But, no one in the public or patients has reported side effects to us."

Pharmacies need to carry out MESO activities. Side effects can have a major impact on increasing health costs. This is because an increase in the incidence of side effects will cause new problems for the patient's health, thereby requiring additional patient health costs [28]. Thus, Medication Side Effects Monitoring (MESO) activities at Pharmacy X is in accordance with that stipulated in the

International Journal of Clinical Inventions and Medical Sciences, vol. 7, no. 1, pp. 32-41, March 2025. **DOI: 10.36079/lamintang.ijcims-0701.808**

Minister of Health Regulation Number 73 of 2016.

14) Drug Therapy Monitoring

Tto support appropriate and rational drug use, there needs to be monitoring by a pharmacist, namely being proactive, anticipating possible drug interactions, and acting before problems arise [1]. Monitoring Drug Therapy (PTO) is a process that ensures that a patient receives effective and affordable drug therapy by maximizing efficacy and minimizing side effects [1].

The informant stated,

> "Drug Therapy Monitoring is also available here, usually elderly patients too, sometimes elderly patients are also counseled plus PTO too."

Activities in PTO include reviewing drug options, dosage, method of drug administration, response therapy, undesirable drug reactions (ROTD), and recommendations for changes or Drug Therapy Monitoring (PTO) at Pharmacy X is in accordance with that stipulated in the Minister of Health Regulation Number 73 of 2016.

5. Conclusion

Pharmacy X located in Kuala Kapuas has put into practice all facets of pharmaceutical services, covering both managerial and clinical aspects, in line with the standards established in the Regulation of the Minister of Health Number 73 of 2016. The execution, which encompasses planning, procurement, storage, and various clinical services like prescription evaluation, dispensing, and counseling, has guaranteed that pharmaceutical services at Pharmacy X operate effectively. By adhering to these regulations, Pharmacy X has played a role in enhancing the safety and efficacy of drug therapy for patients. In the future, enhancing technology-driven services and improving community access may serve as a priority to elevate the standard of pharmaceutical services. The professional practice of pharmacists in Indonesia is necessary to protect patients from inappropriate services. If pharmaceutical service standards are not implemented properly, there is a risk of endangering patient safety and increasing inequalities in access to health services.

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