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The Efficiency-Based Drug Supply Strategy at Mardi Waluyo Hospital, Metro Lampung

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ABSTRACT

The Drug inventory management in hospitals is a crucial aspect of operational efficiency and healthcare service delivery. Ineffective inventory management can lead to waste, stock shortages, and financial losses for hospitals. This study aims to analyze managerial strategies in drug inventory management at Mardi Waluyo Metro Lampung Hospital to enhance the efficiency and effectiveness of drug distribution and utilization. The research employs a qualitative approach with in-depth interview techniques involving the head of the pharmacy installation and pharmaceutical logistics procurement staff. The analysis covers the processes of drug selection, demand planning, procurement, receipt, storage, distribution, disposal, and adjustment. The findings indicate several challenges in drug inventory management, including discrepancies between stock data and physical stock, a high number of expired drugs, and a lack of control systems for drug usage across hospital service units. To address these issues, this study recommends implementing a technology-based management system to improve stock recording accuracy, enforcing strict First In First Out (FIFO) and First Expired First Out (FEFO) methods, and optimizing policies for the disposal of unused drugs. The implementation of these strategies is expected to enhance hospital operational efficiency and reduce potential waste in drug inventory management.

Keywords: *Drug Supply Strategy, Operational Efficiency, Inventory Management*

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INTRODUCTION

Drug inventory management strategies are key to the success of the Pharmacy Unit in maintaining hospital efficiency. Selecting the right drugs, prioritizing essential drugs, can improve access and rational use of drugs (Ministry of Health, 2008). All pharmaceutical preparations, medical devices, and consumable medical materials circulating in the hospital are the responsibility of the Pharmacy Unit (Ministry of Health Regulation, 2016). The Hospital Pharmacy Unit (IFRS) is a functional implementation unit that organizes all pharmaceutical service activities in the hospital. Pharmaceutical services in hospitals are an integral part of the hospital's health care system, which is oriented towards patient care, providing quality and affordable pharmaceutical preparations, medical devices, and consumable medical materials for all levels of society, including clinical pharmacy services.

An audit by the Central Foundation regarding the performance of the Mardi Waluyo Metro Lampung Hospital Pharmacy Installation found numerous drug

quantities that did not match the physical inventory in each depot and warehouse. Many expired drugs are also found every month, which inevitably results in losses for the hospital. Several managerial evaluations of this issue have uncovered numerous issues, ranging from inconsistencies in stock card filling to inconsistencies in results.*stock* the inventory between the pharmacy system and the physical stock of drugs, both in the outpatient depot, inpatient depot and pharmacy warehouse, as well as many other things that cause a lot of expenses that should be able to be controlled well.

Medication management in hospitals is a crucial aspect of a hospital, and inefficiency negatively impacts operational costs, as drug logistics are a source of budget leakage (Lilihata, 2011). The hospital budget for drugs and medical devices managed by the pharmacy reaches 50-60% of the total hospital budget (Satibi, 2015). Furthermore, medication inventory management is crucial for hospitals, as excessive or insufficient inventory can result in losses. These losses include increased drug inventory costs and disruption to operational activities (Suparyanto and Rosad, 2020).

Managerial strategy is an approach or method used by managers to manage resources, optimize operations, and make decisions to achieve organizational goals effectively and efficiently. This strategy focuses more on the internal management aspects of the organization, such as leadership, decision-making, operational planning, and human resource management (Robbins, et.al, 2018).

Managerial strategy focuses on how day-to-day business processes and operations are executed to support the organization's core strategy. Managerial strategy emphasizes how the organization aligns strategy to its day-to-day operations (Mintzberg et al., 2005). Operational strategy, or an execution-based approach to strategy, relates to how the organization manages resources and processes to achieve efficiency and effectiveness (Slack et al., 2013).

There are several previous studies on drug inventory management in Pharmacy Installations and each study focuses on the problems to be studied in certain parts of each drug inventory process, for example in the study conducted by Harmoni Simamora (2004) regarding the analysis of logistics management in control planning.*safety stock*In the Hospital Pharmacy Installation, this research will further explore the possibilities that could potentially become a source of problems in controlling*safety stock*. Meanwhile, the research that will be conducted at Mardi Waluyo Metro Lampung Hospital will explain each drug inventory process more complexly, because there are indications of non-conformity in every part of the drug inventory process, starting from selection to the system.*adjustment*.

Based on this, the author will conduct research on the drug inventory management strategy at Mardi Waluyo Hospital, Metro Lampung. In this case, the author will provide an overview for hospital managers, as a basis for developing a good drug inventory management strategy, so that the drug inventory process, starting from selection, needs planning, procurement, receipt, storage, distribution, control, withdrawal and destruction, the system*adjustment*, can run well and not cause losses for the hospital.

METHODS

This research was conducted at Mardi Waluyo Metro Hospital, Lampung. The research was conducted from December to February 2025, collecting data from the Pharmacy department from January to June 2024. The research method explains the research design used in this study and the reasons for choosing this design. This

research will be conducted using a qualitative research method with a descriptive approach through unstructured in-depth interviews (*indepth interview*). The research subjects or informants of this study numbered 5 people. The research object started from the planning process to the destruction of drugs in the Pharmacy section of Mardi Waluyo Metro Hospital, Lampung.

Data will be collected in two ways, namely using primary data and secondary data. Primary data was collected using unstructured in-depth interview techniques (*indepth interview*) and observations on the drug management system, while secondary data was obtained from document analysis related to the implementation of pharmaceutical service standards. Data will be analyzed through data collection obtained from interviews, data reduction, data display, and drawing conclusions. The explanation is as follows:

a. Data reduction

Data reduction involves summarizing, selecting key points, focusing on important points relevant to the research topic, and identifying themes and patterns. This ultimately provides a clearer picture and facilitates further data collection. Data reduction is guided by predetermined objectives. Data reduction is also a critical thinking process that requires intelligence and a high level of insight (Sugiyono, 2018).

b. *Display* Data / Data Presentation

Data presentation can be done in the form of tables, graphs,*flowchart*, pictograms, and can also be presented in the form of brief descriptions, charts, and relationships between categories. However, narrative text is often used to present data. This presentation of data allows for organization and structure in a relationship pattern, making it easier to understand. Furthermore, this presentation of data facilitates organization and structure, making it easier to understand (Sugiyono, 2018).

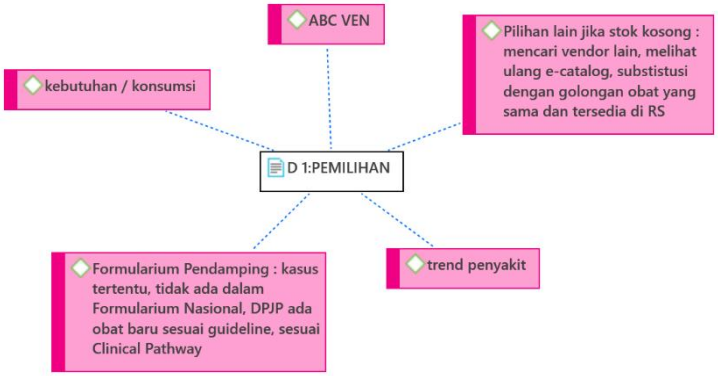
c. Drawing Conclusions.

Conclusions may answer the initial problem statement, but they may not, as previously stated, because the problem and problem formulation in qualitative research are still preliminary and will evolve once the research is in the field. Conclusions in qualitative research represent new findings that have never existed before. Findings can be descriptions or depictions of an object that was previously unclear, but which become clear after further research (Sugiyono, 2018).

RESULT AND DISCUSSION

A. Drug Selection

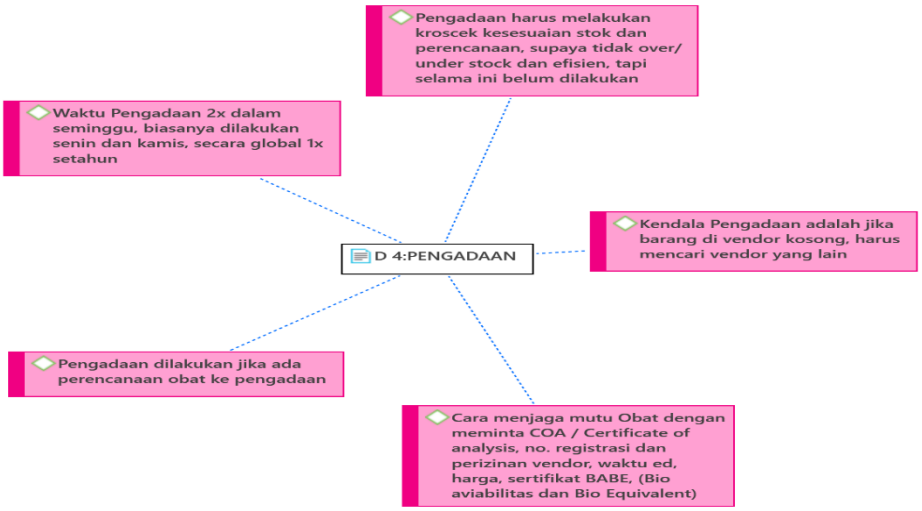
The selection of medicines at Mardi Waluyo Hospital will be regulated in the Hospital Formulary according to needs/consumption,*trend*disease, ABC VEN, namely ABC analysis (*Always Better Control*) is a method for dividing drug planning based on budget, while the VEN classification (*Vital, Essential, Non-Essential*) is a method for classifying drugs based on their urgency/need. At the beginning of each year, a new Hospital Formulary is created and distributed to every doctor. If there are certain cases whose therapy is not included in the Hospital Formulary, it will be included in the Companion Formulary. In addition, if there are any*guideline*the latest will be done*update* on *Clinical Pathway*so as to facilitate the preparation of this Formulary. If a condition occurs where a drug is included in the Hospital Formulary but is not available at the Hospital, then IFRS will look for it.*vendor* the other or look at *e-catalog*, besides that, you can also make substitutions with the same class of drugs and they are available at the hospital.



B. Drug Planning and Procurement

Medication planning will be carried out by the Pharmacy Warehouse department, based on disease/therapy/epidemiology patterns, consumption in the previous period, compared with system calculations, ABC VEN, and the presence or absence of additional specialist doctors. Planning is carried out weekly, with estimated needs added.*lead time*, so that drug planning was made for the next 10 days. During the planning process, there were many obstacles, including from*vendor*, emptiness from distributors, usually raw materials are not available, weather constraints,*human error*Due to lack of orders, minimal production, distributor relocation, or an outbreak resulting in overproduction. If a drug shortage is detected, IFRS will immediately place an order.*vendor*others, with the caption cito /*urgent*.

Procurement is carried out if there is planning from Pharmaceutical Logistics. The procurement department will request a COA or*Certificate of Analysis*, registration number and permit from*vendor*, price and BABE certificate (Bio aviabilitas and Bio*Equivalent*), to ensure the quality of the ordered drugs. Drug procurement is carried out twice a week, on Mondays and Thursdays. In the procurement department, problems usually occur if drug stock is low.*vendor*empty, then the procurement department needs to immediately look for*vendor* other.



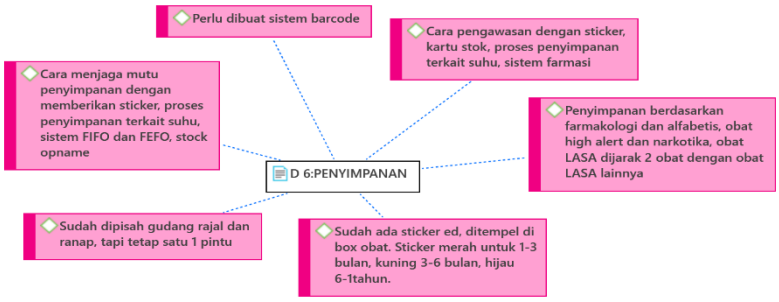
C. Reception

Warehouse Officer will see the order letter, invoice, adjust it to the physical, see the quantity,*batch*, drug name, online BPOM check, expiration date, distribution permit. However, these are not input into the depot system; the system is input by the warehouse, ensuring the pharmaceutical supplies are in good condition before signing the invoice. Challenges faced by the Receiving department in the warehouse include delays in receipt due to lack of confirmation from sales, and if the drug is out of stock, then several*vendor*The delivery schedule is only one. Other obstacles include late deliveries from the manufacturer to the hospital, queues for shipments from distributors, and not all requirements can be cross-checked due to the large number of drugs to be received. Many requirements must be cross-checked while other PBFs are already waiting.

D. Storage

Once pharmaceutical supplies are received, they will be stored according to their pharmaceutical preparation group (drugs, drug ingredients, traditional medicines, cosmetics, and parenteral nutrition). Storage is based on the dosage form (tablets/capsules, syrups, topical medications, injections, and infusions), storage temperature, and drug classification (generic,*branded, high alert*). The drugs will be arranged on shelves/pallets according to pharmacology and alphabetically. These drugs are stored in*system* FIFO (*First In First Out*) and FEFO (*First Expaired First Out*).

The medicine will be stored on a shelf and labeled with the name of the medicine. There is already*sticker*ed, pasted on*box* To indicate whether the drug is fast acting or not, red is for 1-3 months, yellow is for 3-6 months, green is for 6-1 year.



E. Drug Distribution

There are several methods used by the Pharmaceutical Installation in distributing pharmaceutical supplies, namely: Individual prescriptions, Unit dose distribution system (*Unit Dose Dispensing*/UDD), System*One Daily Dose*(ODD), Inventory system in the room (*floor stock*) is limited. A common obstacle is that medication is requested first, but not removed from the system, or vice versa. Sometimes, unused items are entered into the inventory, or vice versa. This obstacle will impact the stock count, which differs between the physical inventory, the stock card, and the pharmacy system.

F. Withdrawal and Destruction

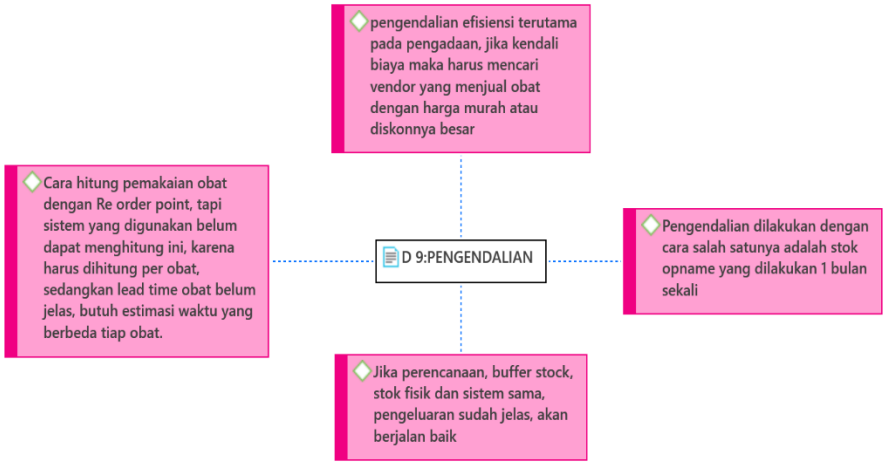
Destruction of drugs that can no longer be returned or*recall* will be destroyed with the news of the destruction event and cooperate with a third party, but so far this was last done in 2021.

In process *adjustment*, which is allowed to do*adjustment*is a medical support manager, with minutes prepared by the Warehouse and depot according to chronology, for example, input errors or stock differences. First, the reason/cause must be investigated, if no specific reason is found, then an action must be taken.*adjustment*. *Adjustment*also applies to ED drugs, it should be in*system*There is no longer any ED medication.

G. Control

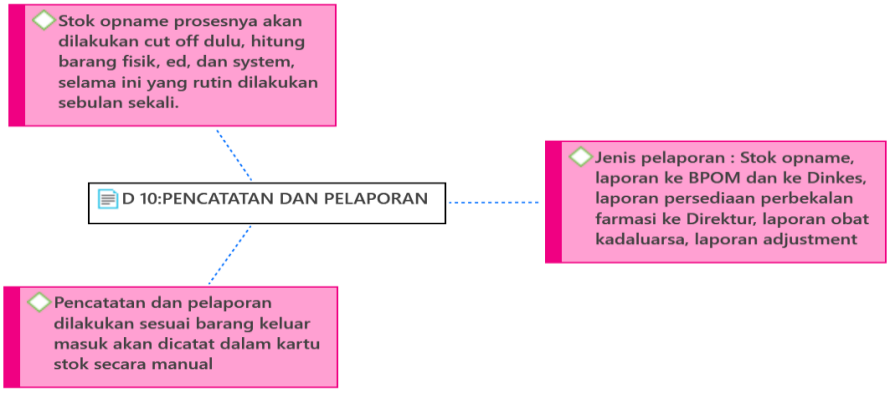
Control activities include estimating/calculating the average stock for a certain period, determining optimum stock, determining lead time (*lead time*), conduct an evaluation of unused inventory for three consecutive months (*death stock*), carry out stocktaking which is carried out periodically and routinely (once a month for pharmaceutical logistics and 3 months for pharmaceutical services and total stocktaking once a year at the end of the year).

The limitation of the current pharmaceutical system is that it cannot calculate*re order point*of each drug because*lead time*which cannot be ascertained for each drug, so the current calculations are not optimal, there is still a possibility*over/under cane*. The difficulty of calculation*lead time*, because the waiting time for each drug cannot be guaranteed.



H. Recording and Reporting

The stock card will contain records and reporting carried out according to incoming and outgoing goods which will be recorded manually. The stocktaking process will be carried out*cut off* first, count the physical goods, ed, and*system,* Annually for global use, while previously routinely conducted monthly for all pharmaceutical supplies. Routine reporting includes stocktaking, reporting to the BPOM and the Health Office, pharmaceutical inventory reports to the Director, expired drug reports, and reports.*adjustment.*



DISCUSSION

A. Election

No.	Main Findings of Research Results
1.	The process of selecting hospital formulary drugs according to needs/consumption,*trend*disease, ABC VEN
2.	Companion Formulary if there are certain cases and they are not in the National Formulary, there are new drugs according to*guideline,* in accordance with the *Clinical Pathway*
3.	Another option if looking for empty stock *vendor*another or look again at*e-catalog,* substitution with the same class of drugs and available at the hospital

B. Planning

No.	Main Findings of Research Results
1.	The planning process is based on disease/therapy/epidemiology patterns, previous period consumption, compared with system calculations, and looking at ABC VEN, if there is an additional DPJP.
2.	Planning Time every 1 week added*lead time*approximately 2-3 days, except for medicines purchased through*e-catalog*, in accordance with the *lead time*, estimated 2 weeks-1 month.
3.	Pharmaceutical logistics will carry out drug planning, according to requests from outpatient and inpatient depots, by looking at the system, based on average usage/consumption, ABC VEN,*Clinical Pathway*, Drug quality, price and optimum stock planning
4.	Drug planning constraints are usually caused by vendors, distributor shortages, usually unavailability of raw materials, weather constraints,*human error*due to no orders, minimal production, distributor location changes, or there is an EGM so production is excessive

C. Procurement

No.	Main Findings of Research Results
1.	The procurement process is carried out if there is planning for drug procurement.

2.	How to maintain drug quality by requesting COA /*Certificate of analysis*, vendor registration and licensing no., ed time, price, BABE certificate, (Bio aviabilitas and Bio*Equivalent*)
3.	Procurement time is 2x a week, if there is something missing/missed it will be ordered the next day, usually done Monday and Thursday, globally 1x a year
4.	Procurement constraints are if the goods are*vendor*empty, have to search*vendor* the other.

D. Reception

No.	Main Findings of Research Results
1.	When the sender of the goods arrives, the invoice and the physical are matched, the quantity is seen,*batch*, drug name, check*online*BPOM, expiry date, distribution permit.
2.	Additional stock entered into the system will be inputted by the warehouse, ensuring that the condition of the pharmaceutical supplies is good, before signing the invoice.
3.	The receiving department will cross-check the conformity with the planning/order letter.
4.	Receipt constraints are usually caused by the lack of confirmation from sales if the medicine is out of stock, some vendors only have one delivery schedule, late delivery from the manufacturer to the hospital, queues for shipments from distributors, not all requirements can be cross-checked.

E. Storage

No.	Main Findings of Research Results
1.	The storage process has been separated into warehouses and warehouses, but there is still one door for reception. Already there *sticker*ed, affixed to the medicine box. To indicate whether the medicine is fast ed or not, red for 1-3 months, yellow for 3-6 months, green for 6-1 year. If the ed is close, it may be possible to return it to the vendor or*warning*for immediate use.
2.	Storage based on pharmacology and alphabetical, drugs*high alert*and narcotics, LASA drugs are spaced 2 drugs apart from other LASA drugs
3.	How to maintain storage quality by providing*sticker*, temperature-related storage processes, FIFO and FEFO systems,*stock* intake.
4.	Ways of surveillance with *sticker*, stock cards, temperature-related storage processes, pharmaceutical systems. There is input made into the system*barcode*.

F. Distribution

No.	Main Findings of Research Results
1.	The depot will request the required medication and distribute it according to the depot's request. From the depot to the polyclinic, based

	one*-abbr* and validated, stating that the quantity is as requested.
2.	Distribution constraints typically involve requests for goods, but they are not released from the system, or vice versa. Sometimes, spoiled goods are put into the system.
3.	Distribution Method:*Floor stock*as requested by the depot, *one daily dose*, individual recipes and*Unit Dose Dispensing*. UDD is a single dose and ODD is the number of doses of medication per day.

G. Control

No.	Main Findings of Research Results
1.	Efficiency control, especially in procurement, requires cost control, and requires finding vendors that sell drugs at low prices or with significant discounts. If planning,*buffer stock*If physical stock and systems are the same, expenses are clear, and things will run smoothly. Unless there's an outbreak, it's difficult to control. Currently, control is carried out through one method, namely monthly stocktaking.
2.	How to calculate drug usage:*Re order point*, but the system used by YAKKUM cannot calculate this.

H. Withdrawal and Destruction

No.	Main Findings of Research Results
1.	Destruction Process: Has not been implemented consistently, most recently in 2021, although it should be annually for ED drugs. ED drugs will be dissolved, with a report issued, and the destruction will be handled by a third party.
2.	Products that are withdrawn, if ed, are immediately separated.*Recall*for example the difference in numbers*batch*, raw materials that do not comply with the circular from the manufacturer, for example withdrawn drugs, but there is no special room, they are only separated in a cupboard.
3.	Process *Adjustment :* Who do *adjustment*is a medical support manager, with minutes made by the Warehouse and depot according to chronology, for example incorrect input or stock differences.*Adjustment* there are additions and subtractions. *Adjustment*also applies to ED drugs, it should be in*system* already not available.

I. Recording and Reporting

No.	Main Findings of Research Results
1.	Stock card: Recording and reporting is done according to incoming and outgoing goods which will be recorded manually on the stock card.
2.	The stocktaking process will be carried out*cut off* first, count the physical goods, ed, and*system,* once a year for global, so far it has been done routinely once a month for all pharmaceutical supplies
3.	Types of reporting: Stock opname, reports to BPOM and to the Health Office, reports on pharmaceutical supplies to the Director, reports on expired drugs, reports*adjustment*

CONCLUSION

The process of selecting pharmaceutical supplies at Mardi Waluyo Hospital has been going quite well, there are only a few obstacles, including the fact that the Hospital Formulary and Companion Formulary have not been compiled, referring to the National Formulary, the latest edition of 2025, so that drug selection is only based on the drug needs of the previous period. The pharmaceutical supply planning process has followed the existing SOP, however, if the pharmaceutical supply system that has been created by the Central Foundation can be implemented well, it will certainly make work easier in the Pharmacy Installation, based on calculations.*real*between the system and the physical form of the drug at the Depot or Pharmaceutical Warehouse. In the process of procuring pharmaceutical supplies, it is best to cross-check the physical stock with the number of pharmaceutical supplies in the system before starting an order, so that there will be no excess or shortage of stock, assisted by the pharmaceutical system.*up to date* to use. The receiving process should be more streamlined, with an order form attached to avoid errors in receiving pharmaceutical supplies. No more pharmaceutical supplies ordered by the outpatient department are being entered into the inpatient department's system due to the lack of information about which department requires them.The storage process is based on FEFO and FIFO, but its implementation still encounters many shortcomings. One example is the failure to cross-check medications with near expiration dates, even though this is made easier by the existence of*sticker* at each *box*medicine, but there are still expired medicines found. The pharmaceutical distribution process often presents a problem due to inaccurate distribution. Medications that should be distributed to outpatient depots are instead sent to inpatient depots, with no cross-check from the staff receiving the medication. Consequently, the system lists the medication as inventory at the outpatient depot, but the medication is not physically available.

REFERENCES

Anthony, R.N. and Govindarajan, V. (2007). *Management Control System 12th*, New York: McGrawHill

Food and Drug Monitoring Agency of the Republic of Indonesia. (2021).*Regulation of the Food and Drug Monitoring Agency Number 24 of 2021 concerning Supervision of the Management of Drugs, Drug Ingredients, Narcotics, Psychotropics, and Pharmaceutical Precursors in Pharmaceutical Service Facilities*. Jakarta: BPOM RI.

Food and Drug Monitoring Agency of the Republic of Indonesia. (2022).*Regulation of the Food and Drug Monitoring Agency Number 14 of 2022 concerning the Withdrawal and Destruction of Drugs that Do Not Meet Safety, Efficacy, Quality, and Labeling Standards and/or Requirements*. Jakarta: BPOM RI.

David, F. R. (2004). *Strategic management (10th ed.)*. Upper Saddle River, NJ: Pearson Prentice Hall.

Dearistya. (2017). SOP for Receiving Goods in Pharmaceutical Warehouses: East Kalimantan in 2017.

Dewayani, J., & Wahyuningsih, F. (2016).*Information system for monitoring motorcycle spare parts inventory using the FIFO method at the Adil Jaya Motor Semarang Shop*. Scientific Journal of Computer Accounting (KOMPAK), 9(1), 9–18.

Faridz, F., et al. (2024). Procurement and distribution of drugs in hospital pharmacy installations.*Indonesian Journal of Pharmacy Management, 10*(2), 78–88. https://doi.org/10.59680/ventilator.v3i1.1579

Hariadi, B. (2005).*Management Strategy: Strategy to Win the Business War* (Ed.1; Jet.2). Malang: Bayumedia.

Indrawati, S., Miranda, S., & Pratama, A. B. (2018). Model of warehouse performance measurement based on sustainable warehouse design. *2018 4th International Conference on Science and Technology (ICST)*, 1–5. https://doi.org/10.1109/ICSTC.2018.8528712

Jauch, R., Lawrence, W. F., & Glueck. (2012).*Corporate strategy & policy management*(Third Edition). Jakarta: Erlangga.

Jawa, L. L. H., Purwadhi, P., Andriani, R., & Andikarya, R. O. (2023). Management Strategy to Improve Excellent Service at St. Rafael General Hospital, Manggarai, NTT.*ARS University Master of Management Proceedings*, *1*(-), 148-156. Retrieved from https://eprosiding.ars.ac.id/index.php/pmm/article/view/1048

Ministry of Health of the Republic of Indonesia. (2016).*Regulation of the Minister of Health of the Republic of Indonesia Number 72 of 2016 concerning Pharmaceutical Service Standards in Hospitals*. Jakarta: Ministry of Health of the Republic of Indonesia.

Ministry of Health of the Republic of Indonesia. (2019).*Guidelines for preparing drug requirement plans and controlling drug inventory in hospitals*. Jakarta: Ministry of Health of the Republic of Indonesia.

Ministry of Health of the Republic of Indonesia. (2023).*National Formulary 2023 Edition*.Jakarta: Ministry of Health of the Republic of Indonesia.

Ministry of Health of the Republic of Indonesia. (2008).*Minister of Health Regulation Number 1010/MENKES/PER/XI/2008 concerning Drug Registration*. Jakarta: Ministry of Health of the Republic of Indonesia.

Kuncoro, M. (2006).*Strategy: How to Achieve Competitive Advantage?*Jakarta: Erlangga.

Lilihata, R. N. (2011). *Analysis of drug management in the pharmaceutical installation of Masohi Regional Hospital, Central Maluku Regency*(Thesis, Gadjah Mada University). Gadjah Mada University.

Lumbangaol, F., & Samran, H. (2024). Implementation of drug logistics management at Surya Insani Pasir Pangaraian Hospital.*Scientific Journal of Public Health, 13*(1), 59–70. https://doi.org/10.59680/ventilator.v3i1.1579

Mulyani, K., & Kahar. (2015). Price and service control as a target market development strategy (case study of PT Salsabila Persada Jakarta).*Infoman's, 9*(2), 16–30. https://doi.org/10.33481/infomans.v9i2.56

Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors.* New York: Free Press.

Purwadhi. (2019).*Human Resource Management Post Industrial Revolution 4.0*. Bandung: Mujahid Press.

Satibi. (2015). *Hospital Pharmacy Management*. Yogyakarta: UGM Press.

Simamora, H., Komara, E., & Hidayat, D. (2024). Analysis of Drug Logistics Management in Safety Stock Control Planning in Hospital Pharmacy Installations.*Management Studies and Entrepreneurship Journal* (MSEJ), 5(1), pp. 3088-3097.

Sofyan, I. (2015). *Strategic management: Techniques for formulating and implementing it for government and business*. Yogyakarta: Graha Ilmu.

Sugiyono. (2018).*Quantitative, qualitative, and R&D research methods*. Bandung: Alfabeta.

Suwarsono. (1996).*Strategic management: Concepts and cases*. Yogyakarta: UPP AMP YKPN.

Suparyanto and Rosad. (2020). Pharmaceutical management. In Suparyanto and Rosad (2015 (Vol. 5, Issue 3)

Law No. 17 of 2023 concerning Health: Republic of Indonesia. (2023). Law No. 17 of 2023 concerning Health. Jakarta: Ministry of State Secretariat.

Law No. 40 of 2004 concerning the National Social Security System (SJSN): Republic of Indonesia. (2004). Law No. 40 of 2004 concerning the National Social Security System. Jakarta: Ministry of State Secretariat.

Presidential Regulation No. 82 of 2018 concerning Health Insurance: Republic of Indonesia. (2018). Presidential Regulation No. 82 of 2018 concerning Health Insurance. Jakarta: Ministry of State Secretariat.