

Drug Management On Availability Of Drugs In Pharmaceutical Installations Pabatu General Hospital Pt Pmn Using Fifo & Fefo Methods

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Abstract.

Drug management on drug availability at the Pharmacy Installation of Pabatu General Hospital PT PMN Serdang Bedagai is still not good. Drug management includes drug selection, drug planning, and procurement as well as drug storage and distribution. This study aims to determine the management of drug availability at the Pharmacy Installation of Pabatu General Hospital PT PMN Serdang Bedagai. This type of research is a descriptive approach with NLP (Neuro-Linguistic Programming) techniques. The population in this study were all staff or employees at the pharmaceutical installation of Pabatu General Hospital PT PMN Serdang Bedagai and a sample of 9 people. The collection of data with primary and secondary data and the data were analyzed by data reduction, data display (data display), and drawing conclusions or levers. The results showed that the drug management at the Pharmacy Installation of Pabatu RSU PT PMN was effective and efficient which included input, process, and output. It is suggested that every human resource in the pharmaceutical installation of Pabatu General Hospital PT PMN should be given the opportunity to improve their knowledge and skills regarding drug management in the installation, so that in the future drug management can be better and the pharmacy installation plays a role in staff development and educational programs such as developing new staff orientation programs, education, and training based on the need for competency development of human resources and head of evaluation to conduct independent research or contribute to research on the development of pharmaceutical service practices in hospitals.

Keywords: Management, Management and Availability.

I. INTRODUCTION

One of the supporting facilities in the hospital is the Hospital Pharmacy Installation (IFRS) which deals with drug management. Hospital Pharmacy Installation in general can be interpreted as a department or unit or part of a hospital under the leadership of a pharmacist assisted by several pharmacists who meet the requirements of applicable laws and regulations and are responsible for all pharmaceutical work. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 72 of 2016 concerning Pharmaceutical Service Standards in Hospitals, Article 3 paragraph (2) states that the management of pharmaceutical preparations, medical devices, and medical consumables as referred to includes selection, needs planning, procurement, receipt, storage, distribution, destruction and withdrawal, control, and administration. One of the efforts to improve the quality of hospital health services can be done by using rational and patient-oriented medicines, and providing quality and affordable medicines for all levels of society. Drug storage indicators include the percentage of match between goods and stock cards, Turn Over Ratio, warehouse arrangement system, percentage of expired or damaged drug value, percentage of dead stock, and percentage of final drug stock value. Thus drug management can be used as a process of driving and empowering all available resources to be utilized in order to realize the availability of drugs whenever needed for effective and efficient operations.

(Permenkes, 2019). Drugs as a hospital's current asset are very important for the survival of patients because 90% of health care interventions in hospitals use drugs. This is what ultimately causes drug availability to be a very important indicator. The occurrence of drug shortages, out-of-stock, or stockpiling up has a medical and economic impact. Things like this require efficient and effective drug management efforts. The demands of patients and the community for improving the quality of pharmaceutical services require hospitals to gradually improve the quality to become more effective and efficient for patients, families, and communities. Drug management in the pharmacy installation must be carried out properly so that the hospital avoids the problem of running out of drug supplies in the pharmacy installation. If there is a vacancy in the stock of drugs in the pharmacy installation, it will certainly greatly affect the quality of

services provided to patients. Based on the description above, a study was conducted to determine the management of drug management on drug availability at the Pharmacy Installation of Pabatu General Hospital PT PMN Serdang Bedagai.

II. LITERATURE REVIEW

2.1. Hospital

According to the World Health Organization (WHO), the hospital is an integral part of a social and health organization with the function of providing comprehensive plenary services in the form of curing disease (curative) and disease prevention (preventive) to the community. A hospital is also a place for the implementation of health efforts, namely an activity to maintain and improve health and aim to achieve optimal health degrees for the community. Health efforts are carried out by maintaining, improving health, preventing disease, curing disease, and restoring health, which is carried out in a comprehensive, integrated and sustainable manner (Siregar dan Amalia, 2021).

2.2. Instalasi Farmasi Rumah Sakit

Hospital Pharmacy Installation (IFRS) is a unit in a hospital where all pharmaceutical work activities are carried out for the needs of hospitals and patients. Pharmaceutical work in question is activities related to the manufacture, quality control of pharmaceutical preparations, management of pharmaceutical supplies (planning, procurement, receipt, storage, distribution, recording, reporting, destruction/elimination), prescription services, drug information services, counseling, clinical pharmacy in the room (Rusli, 2016). Hospital Pharmacy Installation is a medical support service facility, under the leadership of a pharmacist who meets the requirements of applicable laws and regulations and is professionally competent, who is responsible for all pharmaceutical work and services, which consists of a complete service, including planning, procurement, production, storage of health supplies/pharmaceutical preparations, dispensing of prescription drugs for inpatients and outpatients, quality control and control of distribution and use of all medical supplies in hospitals and clinical pharmacy services (Siregar and Amalia, 2021). The task of the Pharmacy Installation is to carry out the management of pharmaceutical preparations and the management of health supplies. Pharmaceutical preparations and health supplies in question are drugs, medicinal ingredients, medical gases, and medical devices, starting from the selection, planning, procurement, receipt, storage, distribution, control, elimination, administration, and reporting as well as evaluation needed for outpatient service activities and hospitalization (Rusli, 2016).

2.3. Drug Management

According to the Regulation of the Minister of Health of the Republic of Indonesia Number 34 of 2016 concerning Pharmaceutical Service Standards in Hospitals, drugs are materials or combinations of materials, including biological products that are used to influence or investigate physiological systems or pathological conditions in the context of determining diagnosis, prevention, healing, recovery, health promotion and contraception for humans. Drug management is a series of activities involving aspects of planning, procurement, storage, and distribution of drugs, as well as rational use of drugs. Effective drug management lies in a policy and legal framework that builds on and supports public commitment to the supply of essential drugs and is affected by economic issues. The objectives of drug management are the availability of essential drugs and accessible to the entire population, ensuring the safety, efficacy, and quality of drugs produced and equitable distribution, increasing the presence of essential drugs in health facilities, rational use of drugs by the community (Embrey, 2012). An important principle in drug management in hospitals is the alignment of each stage and activity. The drug management cycle includes 4 important stages, namely the selection, procurement, distribution, and use stages. The four basic stages in drug management are supported by a management support system consisting of organization, financing and sustainability, information management, and human resource management (Embrey, 2012).

Selection or selection of drugs is an activity process starting from reviewing health problems that occur in hospitals, identifying therapy selection, forms, and doses, determining selection criteria by prioritizing essential drugs, and standardizing to maintaining and updating drug standards. Determination of drug selection is an active role of the Pharmacy and Therapeutics Committee (PFT). Planning in the health

sector is basically a process to formulate health problems that develop in the community, determine the needs and resources that must be provided, set the most basic goals, and develop practical steps to achieve the goals set. Procurement of drugs and medical supplies is a process for the provision of drugs needed in the Health Service Unit. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 58 of 2016 concerning Standards for Pharmaceutical Services in Hospitals, procurement is an activity intended to realize needs planning. Based on Presidential Regulation Number 4 of 2015 concerning the fourth amendment to Presidential Regulation Number 54 of 2010 concerning Government Procurement of Goods and Services. The selection of drug procurement is done through e-purchasing with the e-catalog system. The principle of selecting providers of goods/services electronically is aimed at being efficient, effective, transparent, open, competitive, fair/non-discriminatory, and accountable.

Storage is an important aspect of a comprehensive drug control system. Appropriate environmental controls such as temperature, light, humidity, sanitary conditions, ventilation, and segregation must be maintained when medicines and other equipment are stored in hospitals (Siregar and Amalia, 2021). Storage methods can be carried out based on therapeutic class, dosage form, and type of pharmaceutical preparations and medical supplies and arranged alphabetically by applying the principles of First Expired First Out (FEFO), First In First Out (FIFO), or Last In First Out (LIFO) accompanied by a system management information. Storage of pharmaceutical preparations and medical supplies, which have similar appearances and names (LASA, Look Alike Sound Alike/NORUM (Names of Similar Speech Drugs)) are not placed close together and must be given special markings to prevent medication-taking errors (Rusli, 2016). One of the stages in the drug use process is the delivery of drug preparations from IFRS to patients for use. The process of delivering drug preparations requested by doctors from IFRS for certain patients to the area where the patient is being treated is called drug distribution. Drug distribution is a process of delivering drugs from the time after the preparations are prepared by IFRS until they are delivered to nurses, doctors, or other health care professionals to be given to patients (Siregar and Amalia, 2021). According to the Regulation of the Minister of Health of the Republic of Indonesia Number 58 of 2016 concerning Pharmaceutical Service Standards in Hospitals, it is stated that the elimination is carried out for medicines, medical devices, and medical consumables if: (a) the product does not meet the quality requirements; (b) has expired; (c) Does not meet the requirements for use in health services or scientific interests; and (d) The distribution permit is revoked.

2.4. Metode FIFO (First In First Out) dan FEFO (First Expired First Out)

The First In First Out method assumes that the goods sold first are the goods purchased the first time. According to Riswan and Fasa (2015), the FIFO method is a method that assumes that goods purchased first will be sold first. There are several types of drug storage systems, including:

1. First In First Out (FIFO) is a drug that has just arrived and is placed behind the previous drug.
2. Last In First Out (LIFO) is the drug that comes later/last is placed in front of the drug that came first.
3. First Expired First Out (FEFO) is a drug that has an expiration date first placed in front of a drug that has an expiration date later.

III. METHODS

This study uses a descriptive qualitative approach and the method used in this study uses NLP (Neuro-Linguistic Programming) Techniques. In this study, the researcher tried to dig up information by conducting interviews, observations, and collecting secondary data through documents to support the information obtained from the interviews in an effort to obtain data on how drug management is on the availability of drugs at the Pharmacy Installation of Pabatu General Hospital PT PMN Serdang Bedagai. This research was conducted at Pabatu General Hospital PT PMN Serdang Bedagai starting from February 2022 – March 2022. The population in this study were all staff or employees at the pharmaceutical installation of Pabatu General Hospital PT PMN Serdang Bedagai. The research sample was staff or employees who were directly involved with the drug management process at the pharmaceutical installation of Pabatu Hospital PT PMN Serdang Bedagai as many as 9 people consisting of the person in charge of the drug management process at the pharmacy installation, health workers who were directly involved with the drug management

process at the pharmacy installation, were at the location during the research, willing to be an informant. The sample in this study was determined using the purposive sampling method,

$$n = \frac{N}{1 + Ne^2}$$

Where:

n: sample size

N: population size

e: margin error ($\alpha = 0.10$)

Then the number of samples in this study are:

$$n = \frac{10}{1 + 10 (0,1^2)}$$

$$n = \frac{10}{1 + 10 (0,01)}$$

$$n = \frac{10}{1 + 0,1}$$

$$n = \frac{10}{1,1}$$

= 9,09 or rounded up to 9 people

The data used in this study consisted of two types of data, namely primary data obtained from the object of research through interviews and observations and secondary data obtained from the results of examination or review of documents and reports related to the object of research. The qualitative research approach has a small sample, so to maintain the validity of the data and can be accounted for as scientific research, it can be done by using triangulation techniques. Triangulation is an examination that utilizes something else (beyond the data obtained) as material for checking or comparing the data that has been obtained previously. Data analysis is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation by organizing data into categories, describing, synthesizing, compiling into patterns, choosing what is important and what will be studied, and making conclusions so that they are easily understood by themselves and others. Qualitative research is a research procedure that uses descriptive data in the form of written or spoken words from people and observable behavior.

IV. ANALYZE AND RESULT

4.1. Description of Research Site

The existence of Pabatu Hospital as a referral center for PTP VI was ratified based on the Decree of the Board of Directors No. 06.Dir/Kpts/14/1994. With the Decree of the Board of Directors of PT. Perkebunan Nusantara IV (Persero) No. 04.12/Kpts/R/46/VIII/2009 regarding the dissolution of the IV Business Unit Group on August 31, 2009, the administration of charging patient fees was originally carried out by GUU-VI, since August 31, 2009, the administration has been under three housing units. PTPN IV hospital, one of which is RS.Pabatu. With the issuance of the Decree of the Board of Directors above, the Medan Polyclinic is operationally under the responsibility of RS Pabatu.

4.2. Result

4.2.1. Characteristics of Informants

There were 10 (ten) informants in this study, consisting of a head of the pharmacy installation who was the key informant, a coordinator of planning, administration & general affairs as the main informant, and a coordinator of pharmaceutical & medical supplies management who was also the main informant, and several staff who works at the pharmacy at Pabatu Hospital PT PMN as a supporting informant.

4.2.2 Drug Management

The implementation of all drug management activities is carried out by human resources in the pharmacy installation and is responsible for cyclical drug management to meet the logistics needs of hospital drugs which will be stored in the pharmacy warehouse to be subsequently given to pharmacies and distributed to each health care unit. There are several things that need to be considered, including drug

management inputs consisting of human resources, budget, facilities, and infrastructure as well as procedures in drug management. Next, is the drug management process starting from planning, procurement, storage, distribution, and elimination.

4.2.3 Data Processing

The concept of drug management consists of Input, Process, and Output. The input consists of human resources, budget/funds, facilities and infrastructure, and procedures. The process consists of planning, procurement, storage (FIFO & FEFO), distribution, disposal, and control. Meanwhile, the output is the availability of an effective and efficient drug supply.

A. Input

1. Human Resources (HR)

Human resources at the Pharmacy Installation of Pabatu RSUD PT PMN are headed by a pharmacist who is in charge of drug management in the pharmacy installation. Furthermore, the coordinator, administrative staff, implementing staff, and warehouse admin. The number of human resources working in the pharmaceutical installation of PT PMN General Hospital is 10 people, consisting of 1 pharmacist who is the head of the pharmacy installation, 7 (seven) pharmacist assistants consisting of the pharmacy installation coordinator, administrative staff, implementing staff, and warehouse admin as many as 2 (two) people with high school education.

From the observations of researchers, the number of human resources is sufficient because the process of making reports can be done on time. It's just that it is necessary to conduct training for human resources in pharmaceutical installations so that work can be carried out in accordance with the SOPs that have been set by the company.

2. Facilities and infrastructure

As a supporter of the workforce in carrying out their duties and responsibilities, the availability of facilities and infrastructure is one of the most important things and needs to be considered.

3. Standard Operating Procedure

From the results of observations and document review, it was found that the officers at the Pharmacy Installation of Pabatu Hospital PT PMN had carried out their duties in accordance with the stages of work procedures.

B. Process

The process in this study is a description of drug management in the pharmaceutical installation of Pabatu General Hospital PT PMN which functions to convert inputs into expenditures.

From the results of observations and document studies regarding drug planning at the pharmaceutical installation of Pabatu Hospital PT PMN the method used is the ABC method. Where the ABC method itself is to determine the number of drug items from which the procurement will be planned based on priority. This method is very closely related to the cost and use of pharmaceutical supplies in a year, so a priority level is needed with the assumption of how many orders and when to order. ABC analysis is classified based on 3 types, namely A, B, and C. This analysis aims to determine which drugs are the main priority to be controlled, both planning, controlling and procurement. For the procurement process based on observation and document review, it was found that the availability of drugs was not 100% fulfilled, only 85%. The medication also did not arrive on time or on schedule.

Meanwhile, for one period sometimes it is not sufficient, so cooperation is carried out with the company's partner pharmacies to cover the shortage of drug needs. The results of observation and review of documents for drug distribution carried out at the pharmaceutical installation of Pabatu Hospital PT PMN were appropriate, drugs from the warehouse were sent to the pharmacy installation according to AU 58 (request receipt and goods release). The facilities and infrastructure used are also adequate, and the officers are also sufficient. The results of observation and review of documents for drug deletion obtained were never removed because the drug did not expire because the request was in accordance with the need. For the drug control process, from the results of observations and document studies conducted by researchers, the results showed that drug control had been carried out by way of AU 58 (request receipts and goods issued) there was remaining stock, if it had run out, another order was made.

C. Output

Based on the results of observations and a review of documents at the pharmaceutical installation of Pabatu General Hospital, PT PMN on the drugs in the pharmacy warehouse and related pharmacy depots, it can be seen that the availability of drugs is in accordance with the needs and the quality of the drugs is also good. It's just undeniable that there are some drugs that are not available either in pharmacy warehouses or at service depots. This is due to high demand and vacancies from suppliers or distributors. The results of the researchers' observations for the safety of drugs stored in the pharmacy warehouse of the pharmaceutical installation of Pabatu Hospital, PT PMN are good. There is a prohibition on entering the pharmacy warehouse for those who are not interested and only relevant officers can enter the pharmacy warehouse. The pharmacy warehouse is also equipped with CCTV.

4.3. Discussion

4.3.1. Input

A. Human Resources (HR)

Based on the results of the study, it is known that the existing human resources in the pharmacy installation of Pabatu Hospital PT PMN amounted to 10 people where 1 head of the pharmacy installation is a pharmacist, 1 coordinator of the pharmacy installation is a pharmacist assistant, 1 administrative staff to input drug data, 5 implementing staff who works at the pharmacy depot, and 2 warehouse admins to receive incoming drugs. Human resources that play a role in the management of drug management at the Pharmacy Installation of Pabatu RSU PT PMN are appropriate. However, for workload analysis, the current number of human resources is not sufficient. Ideally, a pharmacist is needed with a ratio of 1 pharmacist for 30 patients.

As for staff development and education programs, training is still needed to improve the knowledge and skills of pharmacy installation officers at Pabatu Hospital PT PMN. Pharmacists should also be encouraged to conduct independent research or contribute to research teams. Although it is considered that they still need training, pharmacy installation officers can still work well and can complete the assigned tasks on time. Training needs to be carried out to improve the performance of hospital pharmacy installation officers so that they can be even better in their work and the responsibilities assigned.

B. Budget

Based on the results of interviews, it was found that 70% of the budget management sources were smooth. It is known that the budget for pharmaceutical installations is only for drugs, while the maintenance of buildings, infrastructure, and stationery is different. The budget itself comes from PT PMN. It was found that there were several obstacles in budget management, one of which was unfinished payments. From the results of interviews obtained, the routine management budget for the maintenance of buildings, facilities, and infrastructure in pharmacy warehouses such as stationery, computers, printers, air conditioners, and others is distinguished by the location of the budget. This routine budget, has been budgeted in a different budget. But from the results of observations in the field, this is still not routinely done. The availability of a regular budget for drug spending and management of building maintenance and drug storage equipment will ensure the quality of supplies and extend the service life of the equipment. This is because if there is a device or drug that is damaged, it can hinder the work of the pharmacist at the hospital pharmacy installation.

C. Infrastructure

With the criteria of facilities, namely room facilities must be adequate in terms of quality and quantity in order to support the functions and processes of Pharmaceutical Services, ensure a safe working environment for officers, and facilitate hospital communication systems. The main facilities consist of office/administration rooms which include leadership rooms, staff rooms, administrative work/administration rooms, and meeting rooms. In addition, the main facility also consists of a storage room for pharmaceutical preparations, medical devices, and medical consumables. This includes pharmaceutical distribution rooms, drug consultation/counseling rooms, drug information service rooms, production rooms, Aseptic Dispensing rooms, pharmaceutical laboratories, non-sterile production rooms, mixing/dissolving/packaging rooms for unstable preparations, and parenteral nutrition storage rooms. Some of the obstacles found during the research were inadequate equipment such as a lack of trolleys, telephones, filing cabinets, storage cabinets, and so on.

With the constraints in facilities and infrastructure, the management of drug supplies can be affected, where the limited space and supporting facilities also make the drug management process less effective.

D. Procedure

From the results of research conducted through interviews, document reviews, and observations, it can be concluded that the existing SOPs related to the drug management process are good and correct. SOPs are made briefly and clearly so that officers can understand. Although sometimes the officers do not implement it perfectly due to several factors such as the density of activities in the pharmaceutical sector so that the workload is not finally done on time. However, this can still be handled by pharmacists and does not really affect the work of pharmacy staff at Pabatu Hospital PT PMN.

4.3.2 Process

A. Drug planning

Based on the results of research conducted using interviews and document review, it can be concluded that the planning of drug requirements at the Pharmacy Installation of Pabatu RSU PT PMN is in accordance with standard operating hospital procedures where 1 planning period is carried out every 3 months (quarterly). Drug planning activities at Pabatu Hospital PT PMN are carried out using the ABC or Pareto Analysis method, which is a drug planning evaluation method that divides drug planning into three drug groups based on the budget owned by the hospital. To determine the number of drug items from which the procurement will be planned based on priority. This method is very closely related to the cost and use of pharmaceutical supplies in a year, so a priority level is needed with the assumption of how many orders and when to order.

The ABC method itself is a naming that shows a ranking where the order starts with the best / most. ABC analysis groups the items into 3 types of classification based on the annual volume in the amount of money supply. Group A is a type of drug with the total value of the procurement plan showing the absorption of funds of around 70% of the total drug fund. Group B is a type of medicine with the total value of the procurement plan showing absorption of funds of around 20%. Group C is a type of drug with the total value of the procurement plan showing the absorption of funds of around 10% of the total drug fund. Planning for drug needs involves pharmacy installations, warehouses, KTU, and hospital heads. Then a special team was formed headed by the head of the pharmacy installation who was known and approved by the head of the hospital. The types of drugs listed in the drug planning list at the Pharmacy Installation of Pabatu RSU PT PMN are in accordance with the hospital formulary. The formulary in it already includes all generic drugs, all drugs in the e-catalog, all drugs in the national formulary, and drugs proposed by SMF (surgery, obstetrics, pediatrics, internal medicine, and others).

With ABC analysis, these types of drugs can be identified, for further evaluation. For example by re-correcting whether the use is indeed a lot or whether there are other alternative preparations that are more cost-efficient (eg other trade names, other dosage forms, etc.). Evaluation of the types of drugs that absorb the most costs is also more effective than evaluation of drugs that require a relatively little budget.

However, in terms of drug planning, there are still common obstacles faced where sometimes there are still delays in ordering goods due to distributors who run out of stock or patients dying, such as in CAPD patients causing drugs to accumulate.

B. Drug procurement

Things that need to be considered in the procurement of drugs include raw materials for drugs that must be accompanied by a certificate of analysis, hazardous materials must include a Material Safety Data Sheet (MSDS), drug preparations must have a Marketing Permit Number, expiry date of at least 2 (two) years except for certain drug preparations such as vaccines, reagents, and others. Based on the results of research conducted by researchers, it can be seen that the procurement of drugs at the Pharmacy Installation of Pabatu RSU PT PMN has been running according to standard operating procedures at the hospital. Meanwhile, the availability of drugs obtained is not 100% fulfilled, only 85% is fulfilled due to the absence of drug availability from distributors or empty goods. So that the party

The hospital cooperates with the company's partner pharmacies to cover the shortage of the drug.

C. Drug storage

Drug storage must consider the form and type of preparation, and the conditions required in the marking on the drug packaging such as storage temperature, light, and humidity. In addition, it is also easy or not for explosive/burning drugs, narcotics, and psychotropic substances to be stored in accordance with the provisions of laws and regulations, and the drug storage area must not be used for storage of other items that can cause contamination of drugs. Storage methods can be carried out based on therapeutic class, dosage form, and type of drug preparation and arranged alphabetically by applying the principles of First Expired First Out (FEFO) and First In First Out (FIFO) accompanied by a management information system.

Drug storage with similar appearance and name (LASA, Look Alike Sound Alike) are not placed close together and must be specially marked to prevent medication errors from taking. Based on the results of research conducted through interviews and document review, it was found that the storage of drugs at the Pharmacy Installation of Pabatu General Hospital PT PMN was in accordance with standard operating procedures of the hospital. The storage process is in accordance with the label, such as drugs that must be placed at a cold temperature in the refrigerator. Drug storage is also equipped with a drug stock card. The method used is alphabetical and also based on the dosage form and based on the FEFO/FIFO principle. The results of this study are in accordance with which states that pharmaceutical installations must be able to ensure that drugs are stored properly and inspected periodically.

D. Drug distribution

Based on the results of the research conducted by the researcher, it can be concluded that the distribution is carried out by the Pharmacy Installation Officer at Pabatu Hospital PT PMN and its implementation is in accordance with standard operating procedures. However, there are still obstacles to the distribution of drugs, namely that there are no special officers or those assigned as pharmaceutical couriers. So that sometimes drug deliveries pile up until another officer is available. To avoid this, the hospital should recruit human resources to add special pharmacy couriers.

E. Drug removal

Based on the results of the study, data was obtained that there was never a drug removal at the Pharmacy Installation of Pabatu General Hospital PT PMN because the demand was in accordance with the usage.

F. Drug control

From the results of research conducted at the Pharmacy Installation of Pabatu Hospital, PT PMN, it was found that it was in accordance with hospital SOPs, such as limiting incoming drugs, namely only drugs that were in accordance with the hospital formulary. The drug control process is carried out by the Pharmacy Installation using the AU 58 card (request receipt and goods issuance), if the stock has run out will be reordered.

The Pharmacy Installation of Pabatu Hospital PT PMN also uses a stock card that serves to facilitate controlling the amount of drug stock every day by recording drug stock. The contents of this stock card consist of the date, proof or bill number, the number of incoming and outgoing medicines, and the remaining stock of medicines. Then this data will be matched with the drugs on the storage shelf. What needs to be considered is the discipline of officers in checking drug stocks so that the use and distribution of drugs are more effective and efficient.

4.3.3 Output

Drug management has three objectives, namely operational objectives where the availability of goods and materials in the right quantities and of adequate quality, financial objectives, namely operational efforts can be carried out at the lowest possible cost and the actual inventory value can be reflected in the accounting system, and objectives security, namely so that inventory is not disturbed by damage, waste, unauthorized use, theft, and improper depreciation. Drug management is a series of activities involving aspects of planning, procurement, storage, and distribution of drugs, as well as rational use of drugs. The drug management cycle includes 4 important stages, namely the selection, procurement, distribution, and use stages. From the results of the research conducted, it can be generally concluded that the availability of drugs at the Pharmacy Installation of Pabatu RSU PT PMN is in accordance with the needs but there are still some

drugs that are not available because the stock at the distributor is vacant, so the hospital must cooperate with company partner pharmacies.

From the results of the study, it was also found that the planned drugs and drug stock procurement were fulfilled by 85%. This is considered good enough for the procurement of drugs. These drugs are also directly distributed to depots as requested so that no hospitalized stocks are found. So there is less chance of expired drug stock. And there is no need for drug removal. And the process has been carried out effectively and efficiently using the FIFO and FEFO methods. According to Badaruddin (2015) which says that output is goods or services that are produced directly from the implementation of activities based on the inputs used. Good achievement of output cannot be separated from the good inputs they have. Based on the results of this study, shows that the output of drug management at the Pharmacy Installation of Pabatu RSU PT PMN is in accordance with the 2014 Ministry of Health standard which states that the percentage of expired and damaged drugs is 0%.

V. CONCLUSION

From the results of the research that has been carried out, it can be concluded that the management of drug management at the Pharmacy Installation of Pabatu General Hospital PT PMN is effective and efficient. It can be seen from the following variables:

1. Input

- a. There are 10 human resources in charge of the pharmacy installation because the workload that is owned can still be handled so that the human resources are sufficient. For HR, no previous training has been conducted.
- b. The source of the budget comes from PT PMN and is not sufficient because the management is only 70% smooth.
- c. Facilities and infrastructure are quite complete and adequate. The facilities consist of a separate building, computers, tables, chairs, air conditioning, drug storage racks, refrigerators, and special narcotics cabinets. The room floor is tiled, the walls are painted white, the distance between the wardrobe and the wall is spaced, and the barn door is equipped with a double lock.
- d. Drug management procedures are in accordance with SOPs and are quite effective.

2. Process

- a. The drug planning process uses the ABC method or Pareto Analysis, which is a drug planning evaluation method that divides drug planning into three drug groups based on the budget owned by the hospital. The planning time is done every quarter and the type of drug is according to the formulary and e-catalog.
- b. Drug procurement based on formulary and e-catalog. Only about 85% of the supply of drugs is fulfilled, due to insufficient drug availability, so collaboration is carried out with the company's partner pharmacies. Medications ordered also do not always arrive on time.
- c. Responsible for drug storage are all pharmacy installation officers at Pabatu Hospital PT PMN. Drug storage by the label. And according to the FIFO and FEFO methods.
- d. Drug distribution is carried out from the warehouse to the pharmacy installation after which it is distributed to the depot of each installation based on the request receipt and the release of goods.
- e. So far, drug deletion has never been done because the drug never expires. Drug demand is in accordance with the number of drug needs.
- f. Drug control is carried out by limiting drug orders to only those according to the formulary and needs.

3. Output

The percentage of planning and procurement of drug needs was only achieved at 85%, which should be based on the Ministry of Health of the Republic of Indonesia must be 100%. This is due to the availability of drugs ordered empty at the distributor. For drug storage, it is appropriate to use the FIFO & FEFO methods. Meanwhile, the elimination of drugs was never carried out because the drugs were always used up as needed.

REFERENCES

- [1] Kementerian Kesehatan RI. 2019. Pedoman Penyusunan Rencana Kebutuhan Obat dan Pengendalian Persediaan Obat di Rumah Sakit. Jakarta.
- [2] Keputusan Menteri Kesehatan Republik Indonesia Nomor 72 Tahun 2016 tentang Standar Pelayanan Farmasi di Rumah Sakit.
- [3] Peraturan Menteri Kesehatan Republik Indonesia Nomor 58 Tahun 2014 tentang Standar Pelayanan Kefarmasian di Rumah Sakit.
- [4] Rusli. 2016. *Farmasi Rumah Sakit dan Klinik*. Kementerian Kesehatan Republik Indonesia. Jakarta.
- [5] Siregar, Charles, J.P. dan Amalia, L. 2021. Farmasi Rumah Sakit Teori & Penerapan. Penerbit Buku Kedokteran EGC. Jakarta.
- [6] Aditama, T. Y. 2018. Manajemen Administrasi Rumah Sakit. Edisi Kedua. Jakarta: UI Press.
- [7] Febriawati, Henni. 2013. Manajemen Logistik Farmasi Rumah Sakit. Yogyakarta: Gosyen Publishing.
- [8] Satibi. 2016. Manajemen Obat di Rumah Sakit. Yogyakarta: *Gadjah Mada University Press*.
- [9] Seto, Soerjono., Yunita, dkk. 2016. Manajemen Farmasi 2. Edisi 4. Surabaya: Airlangga University Press.
- [10] Siregar, Charles, J.P. dan Amalia, L. 2021. *Farmasi Rumah Sakit Teori & Penerapan*. Jakarta: Penerbit Buku Kedokteran EGC.