

Managing Drugs Supply in Pharmacy Logistic of Public Hospital in Indonesian

Mujadidil Haq¹, Nurhidayat², Reni Dian Octaviani³

Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia

*Corresponding author: mujadidilhaq98@gmail.com

Abstract. Inventory control of drugs in hospital which are not done properly can cause stockout or stagnant of supplies. Based of data processing of the drug at Siti Khodijah Sepanjang Hospital experienced stagnant amount 38,9% and stock out amount 29,3% during period January-September 2015. The objectives of the study were to analysis inventory control of drug in logistic pharmacy Siti Khodijah Sepanjang Hospital. This research was a descriptive research with cross sectional design by observation and interviews. In depth interviews were carried out to get more detailed information about the variables examined. Activity of planning, procurement, distribution, and storage are performed not effective enough so led to stagnant and stock out drug. Also evaluation that has running was not adequate because only looks about financial audit. The conclusion that can be drawn is logistic management system has not run effectively so that the occurrence so stagnant and stockout drug.

Keywords: drug, hospital, logistic management

Introduction

Drug logistics management is the thing very important for hospitals because of supplies drugs that are too big or too little will making hospitals suffer losses. Loss obtained in the form of costs for the supply of medicines enlarged and disrupted operational activities service (Verawaty et al., 2010). Negative impact medically and economically will be felt hospital if there is ineffectiveness do drug management (Ansari, 2009). As research conducted by Mellen 2012 at the RSU Surabaya Hajj that conditions are stagnant and stock out medication can cause considerable losses which must be borne by the Hospital. Siti Khodijah Hospital Along is one type B Hospital and is one of the health charity businesses owned Muhammadiyah. Management of pharmaceutical drug preparations Siti Khodijah Hospital As long as handled by the Installation Pharmacy which consists of two units namely logistics and pharmaceutical depot. this research focuses on management of pharmaceutical pharmaceutical preparations on logistics pharmacy. Based on inventory data management medicine on Hospital Pharmacy Installation Logistics Siti Khodijah Along with ABC Analysis obtained stagnant incidence rate of 38.9% and the average stockout incidence is 29.3% in the period January to September 2015. This study aims to analyze management system for pharmaceutical pharmaceutical preparations on pharmacy logistics RS Siti Khodijah Sepanjang. Results research is expected to be able to

provide recommendations for improving management of pharmaceutical preparations which drugs can increase efficiency and reduce hospital costs.

Hospital Pharmacy Installation provides pharmaceutical services consisting of services plenary in the form of planning, procurement, production, storage of medical supplies or pharmaceutical preparations, drug distribution, drug use and quality control (Siregar, 2004). Pharmaceutical services are managerial, which is called the management of pharmaceutical preparations which are cycles. which consists of planning, procuring, receiving, storing, distributing, destroying and withdrawing, and administering records and reporting (Minister of Health Regulation No. 58 of 2014).

Drug Planning

Planning is an activity in determining the number and period of procurement of pharmaceutical preparations, medical devices, and consumable medical materials in accordance with the results of election activities to ensure the fulfillment of the criteria of the right type, exact number, timely and efficient (Permenkes, 2014).

Drug Procurement

Procurement is an activity to fulfill drug needs according to operational requirements set out in the planning process (Permenkes, 2014) Procurement of drugs has three important requirements that must be met, including: according to plan; according to ability; system or method of procurement in accordance with the provisions (Seto et al, 2012).

Acceptance of Medicines and Drug Storage Acceptance is an activity to ensure the suitability of the type, specification, quantity, quality, time of delivery and price stated in the contract or order letters with physical conditions received.

Drug storage

Drug storage is a process whereby after an item is received at a pharmaceutical installation and before it will be distributed the goods.

Drug Distribution

Distribution is a series in order to distribute pharmaceutical preparations, medical devices, Medical BHP from the storage area to the service units or patients while ensuring quality, stability, type, amount, timeliness.

Drug Extermination

Destruction is carried out for pharmaceutical preparations, medical devices, and consumable medical materials if the product does not meet quality requirements, the product has expired, the product does not meet the requirements for use in health services or scientific interests, the distribution permit is revoked.

Recording and Reporting

Administration must be carried out in an orderly and continuous manner to facilitate the tracking of activities that have passed. One administrative activity is recording and reporting.

Drug management

Drug management is the ability of the hospital to optimize drug use. Drug management with the requirement of five accuracy, namely right product, right patient, timely, appropriate use and the right amount can guarantee patient safety. Accuracy is also accompanied by appropriate communication, precise reasons and proper documentation (Romero, 2013).

Method

This research is an observational descriptive study with a cross sectional study design. Unit analysis of this study is the Logistics Unit Pharmacy Installation at Siti Khodijah Hospital. The source of this research information is the Head of Pharmacy Installation, Head of Logistics Room and officers in the logistic unit. The study was conducted in the pharmaceutical logistics of Siti Khodijah Hospital throughout December 2015 to May 2016. Variables examined in this study were methods of stock management pharmaceutical drugs which consist of planning, procurement, receipt, storage, distribution, destruction and withdrawal, recording and reporting and evaluation.

Primary data obtained through interviews and direct observation in the logistics of pharmacy installation RS Siti Khodijah Sepanjang. Observation was carried out by using an observation sheet with measurement results categorized as follows: good assessment (76% -100%), not good (51% -75%), not good (26% -50%), very bad (0% -25 %) by way of calculation = $(\frac{\sum \text{correct score}}{\sum \text{total score}}) \times 100\%$. Interviews were carried out using interview guide sheets which would later be transcribed as a basis for supporting the observation results. Secondary data is obtained by looking at documents relating to research on the installation logistics of study hospital pharmacies and along with other documents. The data analysis technique used in this research is qualitative data analysis which includes transcripts of interviews, data reduction, analysis, interpretation of data and triangulation. From the results of data analysis, conclusions can then be drawn.

Result and discussion

Pharmacy Drug Inventory Management Siti Khodijah Hospital Management of circulating drug supplies in Siti Khodijah Hospital as long as it is carried out with a one-door system by Siti Khodijah Hospital Along. Pharmacy Installation Siti Khodijah Hospital As long as it is headed by the Head of Pharmacy Installation with the last education namely undergraduate pharmacists. drug preparation management activities in the form of planning, procurement, receipt, storage, distribution, destruction and filing (recording and reporting). Good communication from various parties involved in managing drugs can increase the effectiveness of the implementation of these activities (Rosmania and Supriyanto, 2015). The following is the percentage of assessment methods in the drug management process at Siti Khodijah Hospital based on Permenkes No.58 of 2014 and theory:

Table 1. Results of Assessment of Drug Management Activities in Siti Khodijah Hospital Throughout 2016

ACTIVITIES	SUITABILITY	
	YES	NO
Planning	50,00%	50,00%
Procurement	80,00%	20,00%
Reception	85,71%	14,29%
Storage	61,54%	38,46%
Distribution	80,00%	20,00%
Extermination	100,00%	0,00%
Recording and reporting	69,23%	30,77%

Drug Planning

In Table 1 it can be seen that the drug planning method in its implementation is classified as not good (50.00%). In carrying out the planning activities with the consumption method, pharmaceutical logistics has not yet calculated which drug use means that it has not carried out the calculation of consumption method accordingly. The method of calculating the consumption method to obtain drug needs data that is close to accuracy is by calculating the average drug usage, buffer stock, lead time and the amount of remaining drug available (Irmawati, 2014).

Monthly drug planning has not considered the available budget which based on Minister of Health Regulation No. 58 of 2014 concerning Hospital Pharmacy Service Standards that planning must consider several things, one of which is available budget. Monitoring and oversight of expensive drugs can cost around 20% of the cost of drug storage (Khant et al., 2015).

Drug Procurement

Based on Table 1 the method of procurement of drugs in its implementation is classified as good (80.00%). Procurement of drugs carried out by the Pharmacy Installation Logistics of Siti Khodijah Sepanjang Hospital does not guarantee the expired date of drugs where the drugs intended here are drugs other than vaccine types, reagents, and others. Based on Permenkes Number 58 of 2014 concerning Standard Hospital Pharmacy Services that procurement of drugs is an activity intended to realize planning needs. Procurement of drugs must pay attention to several things, one of which is expired date of at least 2 (two) years except for certain types of pharmaceutical preparations, namely vaccines, reagents and others.

Drug Acceptance

In Table 1 the method of receiving the drug that is being administered is classified as good (85.71%). This can be explained because the acceptance of the drug applied can guarantee the suitability of the type, drug specifications, quantity, quality and price of drugs and documents

for receiving drugs are stored properly. However, there are things that have not been implemented to support the acceptance of drugs to better regulate the suitability of time. delivery of drugs from ordering until the goods arrive.

The drug storage method in its implementation was classified as poor (61.54%). This can be explained by the fact that there are a number of things that have not been implemented, as follows: drug storage in the pharmaceutical logistics room still has several drugs which do not have drug name labels, based on Minister of Health Regulation No. 58 of 2014 that the components that must be considered in the storage of drugs include drugs and chemicals used which are labeled clearly containing the name, the first date the packaging is opened, the expiration date and special warning. One of the objectives of regulating good drug storage so that drugs can be easily obtained by officers as drug storage officers (Siregar, 2004).

Drug Distribution

The method of drug distribution is done by the decentralized method, namely all drug distribution to service units is centered on the logistics warehouse accompanied by the provision of certain drugs in the medicine room at inpatient and pharmaceutical depots. Dose Dispensing Unit (UDD) and temporary individual prescriptions for outpatients namely with individual prescription systems. The process of drug distribution is carried out in pharmaceutical installation logistics, namely the First In First principle Out (FIFO), which is where the drug released is the first time the drug comes

The drug distribution method is quite good in its implementation (80%), but there is still one thing that has not gone well, namely when observing there is a drug distribution without submitting the request bill.

Destruction and withdrawal of drugs

The method of drug destruction carried out at the Pharmacy Installation of Siti Khodijah Sepanjang Hospital is working with a 3rd party because the incenerator owned is in a damaged condition. Drugs that are expired and damaged will be collected and then destroyed, accompanied by a Minutes of Destruction (BAP).

Recording and Reporting

Based on Table 1, it can be seen that the drug recording and reporting activities are classified as unfavorable (69.23%) because there are still a number of things that have not been done yet, that is, they have not matched the physical number with the number in computerized systems. Physical calculation of the number of drugs available with the amount available in a computer system has not been carried out periodically only if there is missing at a time. Periodic physical count is important to do. According to the research of Yuliasari (2008) matching the physical amount of inventory with the amount of drug inventory in the inventory system or computer system is one way to control the supply of drugs.

Pharmacy Inventory Management Evaluation

The evaluation carried out by RS Siti Khodijah Sepanjang Pharmacy Installation is a financial audit which compares results with plans that have been arranged over a period of one

year. The financial audit is carried out by the SPI Team of the Hospital of Siti Khodijah Sepanjang where it is carried out after the program is carried out so that the type of evaluation that is carried out is retrospective. However, the evaluation carried out is considered insufficient because in order to control and improve the quality of evaluation services, it must cover all the processes of measurement and evaluation of all activities of the Pharmacy Service at the Hospital on a regular basis.

REFERENCES

- [1] Anshari, M.(2009).Aplikasi Manajemen Pengelolaan Obat dan Makanan, Yogyakarta: Nuha Litera Offset.
- [2] Febreani, Stella H. (2016). Pengendalian Persediaan Obat Pada Logistik Farmasi Rumah Sakit Siti Khodijah Sepanjang. Skripsi. Universitas Airlangga
- [3] Irmawati(2014).Manajemen Logistik Farmasi Di Rumah Sakit Pedoman Buku Ajar S1 Adimistrasi Rumah Sakit.Tersedia di:<https://books.google.co.id> [12 Desember 2015].
- [4] Kagashe, G.A.B. and Massawe, T. (2012). Medicine Stock Out and Inventory Management Problems in Public Hospital in Tanazia: A Case of DAR E SALAAM Region Hospitals. International Journal of Pharmacy, Vol.II, No.2, February, pp.252-259.
- [5] Khant,S., Haldar, P., Singh, A. and Kankaria, A. (2015). Inventory Management of Drugs at a Secondary Level Hospital.Journal of Young Pharmacist.Vol.7, No.2, April-June, pp.113117.
- [6] Management Science for Health (2012) Managing Acces to Medicines and Health Technologies (MDS-3), 3rd edition, Management Science for Health Inc.