ANALYSIS OF THE DRUG MANAGEMENT SYSTEM AT THE PHARMACY INSTALLATION IN THE HOSPITAL: A LITERATURE REVIEW

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ABSTRACT

The hospital is an individual health service facility as well as part of the health resources that are very much needed to support the implementation of health efforts. Hospitals must change the paradigm of hospital management towards a consumer perspective, employee empowerment and service quality improvement. One of the efforts to improve the quality of hospital health services can be done by paying attention to the drug management system in pharmaceutical installations. Drug management in hospitals is an important aspect of hospital management to support quality hospital services. This study aims to determine the drug management system in hospital pharmacy installations in Indonesia. This research is a literature review by searching electronic databases published 2017-2022 and meeting the inclusion criteria. Articles were taken from Scopus, Science Direct, ProQuest, SpringerLink, Google Scholar, Nature, JSTOR, and Emerald Insight databases with a total of 18 articles used. Based on the review of the journal, the results of eighteen articles showed that there were still deficiencies in the drug management system (planning, procurement, budgeting, storage and distribution) at pharmaceutical installations in hospitals and a solution had to be found immediately to improve the drug management system.

Keywords: Pharmaceutical Installations, Drug Management System, Pharmaceutical Services

INTRODUCTION

Hospitals are individual health service facilities and part of the health resources that are indispensable in supporting the implementation of health efforts. Health services in hospitals must be safe, quality, anti-discrimination and effective by prioritizing patient interests according to service standards(Supriyana & Prasetyawati, 2020).

Hospitals must change the paradigm of hospital management towards a consumer point of view, employee empowerment and improving service quality. Quality improvement in health services is not only oriented towards quality service processes, but also the results of quality health services in accordance with the wishes of customers or patients (Adelheid, 2018).

Quality public health services are drug management that is sufficient in terms of type and quantity when needed (Nugroho et al., 2022). Good drug management and according to standards, as regulated in the Standards of Pharmaceutical Services in Hospitals contained in the Minister of Health Decree Number: 1197/Menkes/SK/X/2004 which states that "drug management is a cycle of activities, starting from selection, planning, procurement, receipt, storage, distribution, control, elimination, administration, reporting and evaluation".

One of the efforts in improving the quality of hospital health services can be done by the rational use of medicines and oriented to patient care, the provision of quality and affordable drugs for all levels of society (Widyaningrum et al., 2013).

Drug management in hospitals is one of the important aspects of hospital management, because it has the aim of making the necessary drugs available at any time, in sufficient and guaranteed quantities to support quality services.

Problems that are still encountered in the drug management system in Indonesian hospital pharmacy installations are: planning for drug needs that are not yet appropriate to needs, the budget provided for drug procurement is limited, the procurement system is still ineffective, the area of drug storage warehouses is inadequate and the distribution system medicine that works fine.

The problem mentioned above is thought to be caused by a drug management system that has not been running optimally. Starting from the description above, the writing of this literature review is carried out as input for strategic planning to improve the quality of drug management in hospital pharmaceutical installations in order to have sustainable competitiveness. Improving the quality of drug management is expected to increase customer satisfaction and loyalty.

METHODS

This research is a literature review. Literature review is a research method of reviewing a particular topic that emphasizes a single question that has been systematically identified, assessed, selected and concluded according to predetermined criteria based on high-quality research evidence that is relevant to the research question. The source of this research data comes from literature obtained via the internet in the form of scientific research results from several sources. Data collection was carried out by searching the internet with keywords entered, namely pharmaceutical installations, drug management systems, and pharmaceutical services.

The population in this study is research with a focus on improving the quality of drug management in hospital pharmacy installations from 2017 to 2022, as many as 18 research results were obtained from scientific publications Scopus, ProQuest, Springer Link, Google Scholar, Garuda Portal, JSTOR and Emerald Insight. Quantitative data were obtained which were then analyzed systematically so as to obtain discussions and conclusions that represented the contents of the literature review.
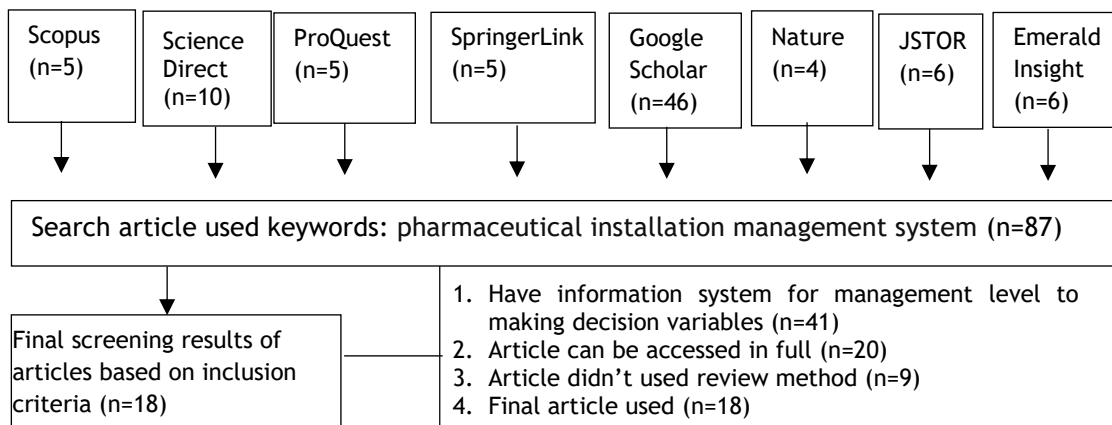
Figure 1. Flow Chart Screening Article

RESULTS

Based on the synthesized article. There are 5 main ideas related to this review. The main ideas are drug planning, drug procurement, drug receipt, drug storage, and drug distribution. These five things are interrelated to find out how to improve the quality of drug management in pharmaceutical installations in hospitals

Table 1. Article Synthesis Result

No.	Main Idea	Similarities of Research Findings
1.	Drug Planning System (Latifah et al., 2019), (AL-hawawsheh, 2019), (Jacky, 2020), (Pratomo et al., 2018)	Drug planning is the initial stage of drug management activities and drug procurement which is the biggest factor that can cause waste, so it is necessary to do efficiency and cost savings. Based on the results of the journal synthesis, it is known that drug planning at the Hospital Pharmacy Installation is carried out by the Pharmacist as the person in charge and the Head of the Logistics and Finance Unit as the budgeting department. The drug planning process is carried out in order to prevent drug shortages with accountable methods, the methods that have been determined are consumption, epidemiology, a combination of consumption and epidemiology methods and must be in accordance with the existing budget.
2.	Drug Budgeting System (Latifah et al., 2020), (Lisni et al., 2021), (Anugrahini et al., 2021), (Hariani et al., 2022)	Drug budgeting is a fund provided by the hospital to support drug management activities in the pharmaceutical warehouse. The budgeting process for procuring drugs at hospital pharmacy installations is the responsibility of the finance department.

		Drug budgeting activities are carried out to determine the amount of costs used to procure drugs at the Pharmacy Installation and also budgeting for funds that have been provided from the hospital to support the needs for managing drug supplies in the Pharmacy Installation. In the process of budgeting for the procurement of drugs, there are problems because the funds provided sometimes experience problems, causing the drugs to be unable to be provided.
3.	Drug Procurement System (Liu et al., 2018), (Atif et al., 2022), (Oktaviani & Pamudji, 2018), (Shorayasari et al., 2018)	The drug procurement process at the pharmaceutical installation in the hospital starts from the submission of the pharmaceutical warehouse to the head of the pharmaceutical installation based on planned needs, after which the head of the pharmaceutical installation will make an order letter, then the order will be submitted to the respective distributor. Based on the results of the journal synthesis, it is known that drug procurement at the Hospital Pharmacy Installation is carried out using e-catalog because the drugs included in the e-catalog are believed to meet the safety requirements and the price is in accordance with what is determined.
4.	Drug Storage System (KOALA et al., 2022), (Kahssay et al., 2022), (Mahdiyani et al., 2018)	Storage must be able to ensure the quality and safety of pharmaceutical preparations, medical devices, and consumable medical materials in accordance with pharmaceutical requirements. Based on the results of the journal synthesis, it is known that drug storage at the Hospital Pharmacy Installation is carried out by storing drugs on shelves, refrigerators, and some are stored in special cabinets. Narcotic and psychotropic drugs are stored in special cabinets with double doors that are always locked.
5.	Drug Distribution Sytem (Hanjaya et al., 2021), (Prabowo & W, 2016), (Satibi et al., 2018)	Distribution is the activity of distributing pharmaceutical supplies in hospitals for individual services in the therapeutic process for inpatients and outpatients and to support medical services. The purpose of distribution is the availability of pharmaceutical supplies in service units in a timely manner, the right type, and quantity. Based on the results of the journal synthesis, it is known that the distribution of drugs at the Hospital Pharmacy Installation is carried out with a decentralized

system, namely through pharmacies and units in the hospital. If the drug stock in the pharmacy has run out or is small in number, the pharmacy will make a request to the pharmaceutical warehouse.

Based on the results of a review of 18 journals that have been conducted, it is found that the drug management system in pharmaceutical installations in hospitals can be carried out by paying attention to several aspects of indicators including drug planning, drug procurement, drug receipt, drug storage, and drug distribution. To improve the quality of drug management at the Hospital Pharmacy Installation, a policy can be made regarding the needs of Human Resources at the Hospital Pharmacy Installation that refers to the applicable Pharmaceutical Service Standards, and efforts can be made to plan the needs of Human Resources so as to improve the quality of the drug management system at the Pharmacy Installation in accordance with Pharmaceutical Service Standards.

DISCUSSION
Drug Planning System

Planning and determining needs is the first step in the drug management process. Planning is carried out to avoid drug shortages by using methods that can be accounted for and the basics of planning that have been determined include consumption, epidemiology and a combination of consumption and epidemiological methods and are adjusted to the available budget (Septi, 2022). Planning for drug needs in pharmaceutical warehouses can be done based on the average amount of drug consumption or the number of uses in the previous period and added 20% of the previous use (Polii S et al., 2021).

Based on the journal synthesis, it was found that planning for drug needs at pharmaceutical installations in hospitals is basically in accordance with the basic principles of drug management, namely planning using the consumption method by looking at the needs for previous use, but it has not been maximized because several times empty drug stocks were found in pharmaceutical installation warehouses. Therefore, the hospital pharmacy installation can anticipate recurring drug vacancies, namely by checking stock periodically, this can be done by the party responsible for planning drugs in the hospital pharmacy installation.

Drug Budgeting System

The source of funds is one of the inputs that support the implementation of a process. The process will run as desired if it is fully supported in terms of funding (Dyahariesti & Yuswantina, 2017). With the availability of the budget, of course, it can influence the process of planning and drug procurement (Satibi et al., 2018). With an adequate budget, the need for drugs will be met properly, on the other hand if the budget provided for procurement of drugs is limited, then hospital pharmacy services will be disrupted.

Based on the journal synthesis, the results show that the

drug budgeting system at pharmaceutical installations in hospitals is still not optimal because the allocation of funds for the drug budget is still lacking so that the availability of drugs from planning is not fulfilled. Therefore, in order to pay more attention and evaluate the budget that must be provided, it is intended that there are no problems in the supply of pharmaceutical supplies. Things that need to be considered when placing an order for drugs are: the number of drugs, the expiration date of the drugs, the quality and quality, the drugs that are urgently needed, the packaging, the price according to the e-catalog and the most important thing is the available funds.

Drug Procurement System

Procurement is an activity to realize the needs that have been planned and approved through the purchase of drugs to distributors (San et al., 2020). In the process of drug procurement, the obstacles that often occur when purchasing drugs are distributors who are often late in distributing drugs to hospitals and the drugs ordered are not available or empty at the distributor, so the pharmaceutical warehouse places orders with other distributors (Indriana et al., 2021). Based on the journal synthesis, the results obtained were that the drug procurement system at pharmaceutical installations in hospitals was not running well, drug vacancies often occurred because drugs ordered to distributors were not sent immediately due to delays caused by delayed drug payments not in accordance with the agreed time. past the due date. In order to reduce the shortage of drugs in this procurement, the pharmacy installation and hospital management must know well the need for drugs. Procurement is said to be effective must guarantee the availability, quantity and time at the right price at an affordable price in accordance with quality standards. Procurement starts from selecting, determining the amount needed, adjusting funds and needs, selecting procurement methods, selecting suppliers, adjusting contracts, monitoring procurement, and payments.

Drug Storage System

Storage is an activity of storing and maintaining and placing pharmaceutical supplies received in a place that is considered safe from theft and physical disturbance that can damage the quality of drugs (Hakim, 2022). In the storage process there are inhibiting factors that affect the process, namely inadequate warehouse conditions. Inadequate layout and layout consisting of many partitions or small rooms so that the space used for drug storage is not effective where the drug warehouse used is a former operating room (Herwanto et al., 2022). Inadequate warehouse area certainly greatly hinders warehouse staff in carrying out drug storage tasks in the warehouse. Based on the journal synthesis, the results show that the drug storage system at the pharmaceutical installation in the hospital is not in accordance with the standard where expired drugs are stored in one room with drugs that have not expired. Therefore, it is better for the Pharmacy Installation at the hospital to rearrange the layout of the warehouse, so that it can be arranged more neatly, add shelves to make it easier to check and carry out the development of warehouses that meet standards so that drug management is carried out efficiently and effectively.

Drug Distribution System

In the process of drug distribution, it is affected by the number of drug requests, if the number of drugs available in the warehouse allows, then the distribution can be carried out to that unit, but if the number of drugs requested is not possible to be distributed according to request, then the drugs provided by the party there are only a few warehouses and distribution cannot even be carried out because the requested medicine is empty (Puspikaryani et al., 2022). Based on the journal synthesis, the results show that the drug distribution system at the pharmaceutical installation in the hospital is not optimal because the waiting time for drug distribution to patients, starting from the patient submitting the prescription to the delivery of the drug, takes quite a long time due to a shortage of pharmacy staff. Therefore, it is necessary to have SOPs that apply in hospitals, especially in pharmaceutical installations because with good and correct SOPs, all processes from management will run as expected.

CONCLUSION

Based on a review of the 18 journals that have been carried out, the results show that there are still many problems found in the drug management system at pharmaceutical installations in hospitals including: the drug procurement system at pharmaceutical installations in hospitals has not gone well, the drug distribution system at pharmaceutical installations at home hospitals have not been maximized, the drug budgeting system in pharmaceutical installations in hospitals is still not optimal and the drug storage system

in pharmaceutical installations in hospitals is not up to standard.

In order to improve the quality of the drug management system in the Hospital Pharmacy Installation, a policy can be made regarding the need for Human Resources in the Home Pharmacy Installation which refers to the applicable Pharmaceutical Service Standards, and efforts are made to plan the needs of Human Resources so as to improve the quality of service in the Pharmacy Installation in accordance with Pharmaceutical Service Standards.

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