

Analysis Of Patient Medication Planning In The Pharmacy Installation Of Rumkit TK. II 01.05.01 Putri Hijau Kesdam I/Bb

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ABSTRACT

The problem of drug vacancies in the hospital which drags on in the hospital interferes with the patient's therapy process. The purpose of this study to the drug planning process from the drug selection process to drug availability. The research design qualitative research and data collection by in-depth interview. The main informants are the deputy head of the hospital, the head of the pharmacy installation, the chairman of the committee of pharmacy and therapy. Triangulation informants are planning staff, warehouse and supplies staff, procurement staff. The variables about the selection process which includes: Formulary, policies and the Pharmacy and Therapeutic Committee as well as the calculation process namely method, budget and priority scale. The results showed the main weakness of the drug planning process Rumkit Tk. II 01.05.01 Kesdam I / BB in the election have not yet formed a Pharmacy and Therapy Team and have not prepared a drug formulary, policies related to drug planning have not been running well. In the process of calculating drugs using the consumption method with a budget percentage of 10-20% and in determining the priority scale, the ABC or VEN analysis has not been used. The conclusion of the study shows the selection and calculation in the process of drug planning in the Pharmacy Installation of Tk. II 01.05.01 Putri Hijau Kesdam I / BB is not in accordance with the standards set by the Indonesian of Health in the Guidelines for the Management of Pharmacy Supplies in Hospitals. The recommended in overcoming the weaknesses of drug planning, intervention should involve the pharmaceutical and therapy committee in the preparation of drug formularies and make standard procedures (SPO) and make improvements in the drug planning process in accordance with the pharmaceutical service standards in hospitals as stipulated in the Ministerial Regulation. Health Number 58 of 2014 and implementing epurchasing drug purchases through the ecatalog system.

Keywords : Drug Planning, Pharmacy Installation, Ministry of Health RI

INTRODUCTION

The role of pharmaceutical management within a hospital pharmacy is crucial for the success of rational drug therapy programs within the hospital. It is also a vital aspect, as ineffectiveness and inefficiency can have a negative impact on the hospital, both medically, socially, and economically, including operational costs and the overall success of the hospital's medication management program. (Siregar & Lia Amalia, 2004)

Prior to the e-catalog system, procurement of medications was generally carried out in accordance with existing regulations, involving planning, procurement processes, ordering from distributors, receiving, and distribution to service units. With the e-catalog, the process is largely the same, with the list of medications already defined. The basis for determining the e-catalog medication list is the proposals from regions across Indonesia, submitted as a list of required medications (RKO). However, not all provincial health departments (Dinkes), particularly healthcare facilities (hospitals and pharmacies) working with BPJS Kesehatan, have submitted their RKO to the Ministry of Health as the basis for e-catalog procurement.(Winda, 2018)

Therefore, the role of pharmaceutical planning management within a hospital pharmacy is crucial for the success of rational drug therapy programs within the hospital. This is a vital aspect, as ineffectiveness and inefficiency can have negative impacts on the hospital, both medically, socially, and economically, including operational costs and the overall success of pharmaceutical management. Activities within pharmaceutical planning include selection, compilation of usage, and calculation of needs.(Indonesia, 2013)

The issue of drug shortages in hospitals impacts the fulfillment of patients' needs for optimal drug therapy and affects patient treatment due to limited availability of medications in prescriptions. Drug shortages can also influence the quality of services provided. Hospitals may also incur financial losses due to drug shortages, specifically the loss of opportunity costs, which refers to the potential profits that are lost.(Prihandiwati et al., 2026)

Optimal management is important because stock shortages or excess can affect hospital service costs. This study aims to determine the percentage of planning achievement, invoicing errors, the frequency of procurement for each medication item, as well as the percentage of dead stock, expired medications, and damaged medications.(Aisyah et al., 2025)

The Tk II Hospital 01.05.01 Putri Hijau of the I/BB Military Command was chosen because this hospital is owned by the Indonesian Army, is a type B hospital, located in the center of Medan, and has been serving BPJS patients. The Tk II Hospital 01.05.01 Putri Hijau of the I/BB Military Command currently serves a significant number of BPJS patients, so it must truly anticipate all the consequences of this government program.

Based on the preliminary opinions gathered from the head of the pharmacy unit and planning staff at this hospital, they agree that pharmacy issues must be a priority for improvement. The problems that frequently arise include drug shortages for fast-moving medications, which often occur in both inpatient and outpatient settings. In the inpatient setting, the most

common issue with drug shortages is particularly in the operating room, where drug shortages can lead to the cancellation of surgeries. During the initial survey, there were 10 instances of patients having their surgeries canceled due to drug shortages. However, the shortage of medication occurring in both outpatient and inpatient care can be promptly addressed by the pharmacy department by making direct purchases from external pharmacies that have established partnerships. Of course, this will lead to other issues, namely that the costs incurred may increase if the medications purchased from outside are at higher prices. In addition to the issue of drug shortages, the head of the pharmacy installation revealed several things related to the overview of the drug planning process, namely :

1. In the process of compiling the drug formulary, there has not yet been involvement from each head of the Functional Medical Staff, but only the Pharmacy Committee Team and the Pharmacy Installation are involved.
2. The evaluation of the compliance of doctor's prescriptions with the formulary has not been conducted, so it cannot be used as input during the determination of the formulary for the following year. This is a factor that affects the planning and procurement of medications in the Pharmacy Installation, which has not been able to be carried out efficiently. This can be seen from the pharmacy services that are often unavailable because the medications prescribed by doctors are not in stock, forcing patients to seek medications elsewhere.
3. Information was obtained that the medication planning is carried out in the pharmacy installation without a medication planning team established at the hospital. The medication planning is conducted by the head of the pharmacy installation and the head of pharmacy planning. The overview of medication planning at the Sultan Sulaiman Regional Public Hospital's pharmacy installation involves determining the types of medications used in the hospital based on the highest drug consumption data, the ten most common diseases in the hospital, and written requests from doctors. Furthermore, a calculation of the quantity of medications needed in the future will be performed, adding 10% to the previous medication requirement. The proposed medication requirement plan that has been created in the pharmacy installation will be submitted to the hospital director for further procurement of medications at the hospital.

METHOD

This research uses qualitative research with content analysis data.(Hendry & Manongga, 2024) The location of this research is at the Tk II Hospital 01.05.01 Putri Hijau Kesdam I/BB. The main informants in this study consist of 3 individuals, where 1 informant serves as the Deputy Head of the Hospital and is a doctor, 1 informant is the Chair of the Pharmacy and Therapy Committee and is also a doctor, and 1 informant is the Head of the Pharmacy Installation and is a pharmacist. The triangulation informants total 3 individuals, including 1 informant who is the Head of the Pharmacy Supply Warehouse and is a pharmacist, 1 informant who is a Procurement Staff member and is a pharmacist, and 1 informant who is a Planning Staff member with a degree in pharmacy.(Saryono & Anggraeni, 2017)

RESULTS

Policy

In the planning process, many aspects do not align with the established policies. From the interview results, it was found that the policies related to drug planning have not been implemented effectively.

Pharmacy and Therapy Committee

There is no involvement of the committee in the preparation of the drug formulary at the Tk. II Kesdam I/BB 05.01.05 Putri Hijau Hospital. The decree, organizational structure, and guidelines related to the pharmacy and therapy committee have been created, but in practice, they have not been significantly involved.

Formulary

The formulary has not been compiled according to the established formulary compilation procedures. One of the reasons is that it has not involved the pharmacy and therapy committee, and there has never been an evaluation of the formulary.

Budget

The ideal percentage standard for this indicator according to the Ministry of Health in the Satibi book is 30%-40%. Based on the interviews conducted with Key Informant 1 and Key Informant 3, the percentage obtained is 10-20%. This can be interpreted as the funds for the procurement being in the range of 30%-40%, indicating that the required funds are not yet proportional to the total budget.

Method

The application of the consumption method used only looks at previous consumption data or possibly data from three months ago, whereas to obtain data on needs that is close to accuracy, an analysis of medication usage from three years prior should be conducted.

Priority Scale

The planning steps do not align with the standards for hospital pharmaceutical services. This is due to the lack of ABC or VEN analysis being conducted. As a result, the determination of the priority scale for medication planning is made by a superior (in this case, the hospital director) without a clear scientific basis.

CONCLUSION

Policy

This policy usually comes from the organization's leadership or the hospital director. This policy will serve as the foundation and guideline for every thought and action of the staff. Therefore, when planning, there is room to interpret and consider, so that it does not contradict existing policies.

In general, hospitals in Indonesia, with the implementation of hospital accreditation by KARS, have created pharmaceutical guidelines and drug management according to the conditions of each hospital. This is also true for Rumkit Tk. II 01.05.01 Putri Hijau Kesdam I/BB, where many aspects of the planning process do not align with the established policy. Interviews revealed that the policies related to drug planning have not been implemented effectively.

The drug policy in hospitals is one of the essential elements in the overall managerial function of the hospital, as non-compliance with policy implementation can have negative impacts on the hospital, both medically and economically.(Noval et al., 2017)

Pharmacy and Therapy Committee

In the SNARS 2018 accreditation, there is an assessment element that requires hospitals to establish a regulation regarding the organization that composes the hospital formulary based on criteria developed collaboratively in accordance with legislation. However, in practice within the hospital, the Pharmacy and Therapy Committee has not performed its duties in accordance with the regulations. According to interviews with key informants and triangulation informants, the role of the Pharmacy and Therapy Committee is nonexistent. There is no involvement of the committee in the development of the drug

formulary at Rumkit Tk. II Kesdam I/BB 05.01.05 Putri Hijau. The decree, organizational structure, and guidelines related to the pharmacy and therapy committee have been established, but in practice, there is still limited involvement.

This finding aligns with Robert B. Goldberg's research, which indicates that an organized and structured process, along with the involvement of all medical staff in formulary development, will increase the use of formulary medications. Additionally, complete and easily accessible information that is understandable will enhance the utilization of the formulary. (Goldberg, 2020)

Formulary

Drug selection is based on the availability of essential medications and within the available budget. Additionally, it must be adapted to doctors' requests, as there is frequent turnover among the doctors on duty at the Level II Military Hospital of Military Command I/BB 05.01.05 Putri Hijau. In practice, physicians' requests for medications prescribed to patients vary even for drugs with the same indications. This naturally results in a highly varied inventory of medications in the pharmacy and makes it very difficult for the hospital to accurately determine the appropriate types and quantities of medications needed.

The medication planning process is carried out in the Pharmacy Department based on the National Formulary and the Hospital Formulary. This is outlined in the Pharmacy Services and Medication Use Policy, which has been in effect since 2018. The policy states that medication planning must adhere to the hospital formulary established by the hospital director.

The process of compiling a formulary in a hospital consists of several stages, beginning with the development of criteria by the Pharmacy and Therapeutics Committee (PFT), followed by the distribution of a questionnaire to all clinical departments to gather input on drug lists from each department, which are then selected and finalized for inclusion in the formulary. In the formulary compilation process, particularly during the stage where physicians propose drugs, there is a selection and screening process. It is this stage that was not carried out at Level II Hospital 01.05.01 Putri Hijau, Kesdam I/BB. Consequently, physicians were reluctant to prescribe drugs in accordance with the formulary because, through the PFT, they felt they were not involved in the formulation process.

In this study, there were 14,573 medication items listed on prescriptions and 812 medication items that did not comply with the formulary, resulting in an average annual prescription non-compliance rate of 5.58%. When compared to the minimum standards for hospital pharmaceutical services, these results fall far short of expectations. Discrepancies between

drug prescriptions and the hospital formulary will have a significant impact on both patients and the hospital, namely drug shortages.

To achieve the goals of the hospital formulary or to ensure that physicians comply with the hospital formulary, continuous intervention, periodic reviews, and ongoing feedback regarding the hospital formulary are necessary.(Azahra et al., 2025)

Budget

The increase in funding for medication needs compared to the previous year was due to a rise in the number of patient visits and an increase in medication prices. The allocation process was calculated by estimating the quarterly budget requirements by first calculating the total expenditures for each activity and then multiplying that figure by 4 (the number of quarters in a year). The result of this calculation is then increased by 50% (to account for anticipated increases in prices and the number of patient visits). This approach does not align with best practices; according to hospital pharmaceutical supply management guidelines, the average monthly usage should be calculated based on the previous month's consumption. The implementation of this annual work plan and budget was not carried out properly because only 10–20% of the budget was allocated; consequently, this drug budget shortfall is one of the reasons for the practice of routine (daily) drug budgeting.

Every October, hospital management will make adjustments to the hospital budget if funds fall short. These budget adjustments are intended to cover unmet budgetary needs, even though the budgeting process has been structured in accordance with regulations. Funding adjustments for the following year are proposed to the Head of Health Services for Kodam I/BB. In accordance with the Guidelines for Preparing Drug Requirement Plans and Controlling Drug Inventories in Hospitals issued by the Ministry of Health, drug requirement plans are submitted to the Ministry of Health via the e-Monev Obat application. Every government and private institution that procures drugs based on an electronic catalog must use e-Monev Obat. However, at the Putri Hijau Level II Military Hospital 01.05.01 under the I/BB Military Health Command, the RKO was not submitted to the Ministry of Health via this e-Monev application. This was because the staff sent to attend the e-Monev training kept changing, resulting in insufficient training and an inability to implement the system effectively.

Funding shortages continue to occur frequently at each hospital. Budgetary factors can contribute to drug shortages, as the available funds are insufficient to plan for drug procurement, while the number of patients at the pharmacy department is increasing.(Panduwiguna et al., 2024)

Method

The medication distribution conducted at the Level II Military Hospital of Military Command I/BB 05.01.05 Putri Hijau in Medan did not meet the requirements of either the consumption method or the epidemiological method; this was due to numerous shortcomings found in the application of these methods. Specifically, in the application of the consumption method, only previous consumption data—or possibly consumption data from three months ago—was considered, whereas to obtain data on needs that is as accurate as possible using the consumption method, an analysis of drug usage from the previous three years should have been conducted.

In theory, the consumption method does have advantages: if consumption data is complete, prescribing patterns remain unchanged and demand remains relatively constant, so the likelihood of drug shortages or surpluses is very low. Meanwhile, the advantages of the epidemiological method include demand estimates that are close to accurate and can be applied to new programs, and treatment standards that can support efforts to improve drug usage patterns. The researchers concluded that the method used in drug planning relies more heavily on the consumption method—that is, based on drug usage patterns from the previous period. This consumption method is used because it is the simplest compared to other methods; however, it does not yet comply with the 2010 Ministry of Health regulation regarding guidelines for the management of pharmaceutical supplies in hospitals.

When applying the consumption method, relying solely on past consumption data—or even consumption data from three months ago—does not accurately reflect actual consumption patterns. Consequently, applying this method may result in either an excess or a shortage of medication.(Afriana, 2018)

Medication needs are planned based on previous medication use (consumption method) and based on disease patterns (epidemiological method) , adjusted to the available budget. Thus, in accordance with hospital management guidelines, which state that to plan for future medication needs, the consumption method—based on the previous year's medication usage—and the epidemiological method—based on disease patterns . By using this data, the medications planned can be both the correct type and the correct quantity to meet the community's needs within a specific time frame.(Tunggai et al., 2017)

Priority Scale

The benefit of using ABC analysis is that it identifies the types of medications that incur the highest costs, while VEN analysis classifies medications according to therapeutic needs; the existing VEN criteria are based on the hospital formulary. A combined ABC and VEN

approach can assist in drug procurement by considering both the economic aspect—specifically, the cost of drug usage relative to the annual drug purchase budget—and the medical aspect based on the hospital's needs.

The ABC analysis method is an analytical approach used to improve the efficiency of fund utilization by grouping drug items into three categories based on annual monetary volume, thereby making it easier for the planning department to manage drugs and better forecast and control safety stock levels.(Shah et al., 2017)

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