



## EVALUATION OF PHARMACY SERVICE IMPLEMENTATION IN CLASS C HOSPITALS IN KEBUMEN AND IMPROVEMENT STRATEGIES

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### ABSTRACT

Health is a fundamental human right, and pharmacy services are a vital component of the healthcare system, especially in hospitals. The Ministry of Health Regulation No. 72 of 2016 serves as a guideline for implementing pharmacy services to ensure optimal healthcare delivery. Objective: This study aims to evaluate the implementation of Ministry of Health Regulation No. 72 of 2016 regarding pharmacy services in three class C hospitals in Kebumen Regency and to formulate improvement strategies using the Hanlon method. Method: A descriptive-analytical approach with a cross-sectional design was used. Data were collected through observations and interviews with the heads of pharmacy departments in the three hospitals. Results: The implementation of pharmaceutical supply management and clinical pharmacy services achieved 72.7% of the established standards. Key activities such as prescription review, medication history tracking, and counseling were conducted. However, activities like Drug Use Evaluation, sterile dispensing, and Therapeutic Drug Monitoring were not implemented due to limited facilities and skilled personnel. Hanlon analysis identified priority issues, including drug procurement accuracy, the number of items per prescription, and the lack of Drug Use Evaluation and Therapeutic Drug Monitoring. Conclusions: To improve service quality, recommendations include increasing budget allocation, training medical staff, and improving infrastructure. Addressing these issues is expected to enhance patient safety, drug use efficiency, and overall service satisfaction in the hospitals.

Keywords: Permenkes No 72 of 2016; pharmaceutical services; type c hospitals; hanlon method

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### INTRODUCTION

Healthcare services are an integral part of the national health system and interact directly with the community. According to Law Number 17 of 2023 on Health, healthcare facilities are designated locations to implement various healthcare efforts, including promotive, preventive, curative, and rehabilitative services, conducted by the government, regional authorities, or the public (Presiden Republik Indonesia, 2023). A hospital is a legally recognized healthcare institution that provides comprehensive individual healthcare services, including emergency, inpatient, and outpatient care. Based on their facilities and service capabilities, general hospitals are classified into classes A, B, C, and D (Kementrian Kesehatan RI, 2019). A Class C hospital is a district/city-level hospital equipped with basic specialist and support medical facilities and capabilities, with the potential to enhance other medical services. Pharmaceutical services hold significant importance in meeting public health needs as they serve as a supporting service that functions as a cost center and is expected to become a revenue center for the hospital. Pharmaceutical services are conducted through a multidisciplinary approach coordinated among hospital staff. Unsafe medication practices and medication errors are major causes of preventable injury and harm within healthcare systems worldwide. Therefore, hospitals must comply with legal regulations, establish pharmaceutical service systems, and adopt safer medication practices to reduce medication errors (KARS, 2019).

Pharmaceutical practices required by hospitals, community health centers, and pharmacies include effective medication planning to ensure a continuous supply of medicines for patient care. Public expectations for pharmaceutical practices include the availability of a complete range of medications, prompt service, and concise yet comprehensive medication information (Siahaan & Handayani, 2019). Government Regulation No. 28 of 2024 states that pharmacists must implement pharmaceutical service standards as mandated to be regulated by the Ministry of Health (PP No. 28, 2024). Pharmaceutical management services include the management of pharmaceutical supplies, medical devices, and consumable medical materials. Clinical pharmacy is another essential service (Kementrian Kesehatan RI, 2016). Article 2 of Ministry of Health Regulation No. 72 of 2016 specifies that managing pharmaceutical supplies, medical devices, and consumables includes selection, needs planning, procurement, receipt, storage, distribution, disposal and recall, control, and administration. Article 3 outlines Clinical Pharmacy Services, including prescription review, medication history tracking, reconciliation, Drug Information Service (DIS), counseling, ward rounds, Medication Therapy Management (MTM), Adverse Drug Reaction Monitoring (ADRM), Drug Utilization Review (DUR), sterile dispensing, and Therapeutic Drug Monitoring (TDM) (Tisa Amalia & Tyantica Usdianty Putri, 2021).

Kebumen Regency spans an area of 128,111.50 hectares and consists of 26 districts. It features coastal areas and hills, with the majority being flatlands. This regency is home to a population of 1,361,913 residents (BPS, 2020). According to a survey by the Central Bureau of Statistics, it is also one of the poorest regencies in Central Java (BPS, 2022). Based on its geographic background and population size, Kebumen Regency has several public and private hospitals of varying classes. Three private hospitals are classified as Class C (Kementrian Kesehatan RI, 2020). A Class C hospital also serves as a second-level referral hospital after community health centers and other first-level healthcare facilities (Kementrian Kesehatan Republik Indonesia, 2022). In Kebumen Regency, three private hospitals are classified as Class C hospitals (Kementrian Kesehatan RI, 2022). Implementing service standards still shows that some hospitals must fully comply with the law. Tisa Amalia and Tyantica Usdianty Putri's (2021) research highlights this issue. It was found that clinical pharmacy services at Hospital A were not fully implemented; certain services, such as ward rounds, medication history tracking, drug utilization evaluation, therapeutic drug monitoring, and blood drug level monitoring, still needed to be put in place (Tisa Amalia & Tyantica Usdianty Putri, 2021). Based on previous research, the quality of pharmaceutical services in hospitals, as outlined in Ministry of Health Regulation No. 72 of 2016, requires further investigation to ensure that the healthcare services provided to the people of Kebumen comply with government regulations. This investigation aims: first, to assess the implementation of Ministry of Health Regulation No. 72 of 2016 in the selection, procurement, distribution, and use of pharmaceuticals in private Class C hospitals in Kebumen Regency; second, to evaluate the implementation of Ministry of Health Regulation No. 72 of 2016 in clinical services within the pharmacy installations of private Class C hospitals in Kebumen Regency; and third, to provide improvement strategies for the three Class C hospitals in Kebumen Regency using the Hanlon method for problem prioritization.

## **METHOD**

This study is a descriptive and analytical research with a cross-sectional approach conducted at a single point in time. The research subjects are the pharmacy departments of Class C private hospitals in Kebumen Regency. Sampling was conducted through interviews with the heads of pharmacy departments and observations from March 20 to September 20, 2023, in Kebumen Regency. The population of this study consists of the heads of pharmacy service departments at three Class C private hospitals in Kebumen Regency. The sampling technique used was purposive sampling, with sample criteria divided into two categories: Inclusion

Criteria: Heads of pharmacy service departments at Class C private hospitals in Kebumen Regency willing to participate as respondents. Exclusion Criteria: Heads of pharmacy service departments unwilling to participate as respondents. The materials used in this study include all documents related to the research data. The tools used include research instrument documents, a PC, MS Office data processing applications, and other software to support the smooth conduct of the research. The collected data was processed using MS Office applications. Data from each hospital was analyzed individually, and then comprehensive conclusions were drawn at the regency level. Management improvements were carried out using the Hanlon method. The basic weighting formula of the Hanlon method involves assigning scores to a series of criteria: A, B, C, and D (PEARL). For the evaluation of criterion D/PEARL, the results of each factor are multiplied, meaning that if any factor scores 0, the overall result will also be 0, and the issue will not be considered a priority. Once all criteria have been scored, the next step is to calculate the BPR and OPR values using the formula. After calculating the BPR and OPR values, the first priority is the issue with the highest OPR score. (Irawan & Christian, 2021)

## RESULT

### Pharmaceutical Preparation Management

An observation of the quality of pharmacy services in Class C hospitals in Kebumen Regency was conducted using instruments for medication management in hospitals and the alignment of pharmacy services with Ministry of Health Regulation No. 72 of 2016 (Ministry of Health RI, 2016). The analysis results indicate that several service standards have been met, while others still need to align with the required standards, as shown in the table below:

Table 1.  
Pharmaceutical preparation management activities based on Minister of Health Regulation No. 72 of 2016

Indicator	Hospital A	Hospital B	Hospital C
<b>Selection Stage</b>			
Compliance of available drug items with formulary	71% (Non-Compliant)	62.19% (Non-Compliant)	54% (Non-Compliant)
<b>Procurement Stage</b>			
Percentage compliance of procurement with actual usage per drug item	67.7% (Non-Compliant)	91% (Non-Compliant)	95% (Non-Compliant)
Frequency of procurement per drug item	7x (Low)	7x (Low)	7x (Low)
<b>Distribution Stage</b>			
Match between drugs and stock cards	100% (Compliant)	100% (Compliant)	100% (Compliant)
Percentage of expired drugs	0% (Compliant)	0% (Compliant)	0% (Compliant)
Dormant stock	0.75% (Non-Compliant)	0.71% (Non-Compliant)	0.5% (Non-Compliant)
<b>Usage Stage</b>			
Number of drug items per prescription	3.6 (Non-Compliant)	3.07 (Non-Compliant)	2.9 (Non-Compliant)
Average time to serve prescriptions until received by patients	Compounded 55:40 mins, Non-Compliant Compounded 19:03 mins (Compliant)	Compounded 40:05 mins, Non-Compliant Compounded 24:03 mins (Compliant)	Compounded 44:20 mins, Non-Compliant Compounded 22:30 mins (Compliant)

### Implementation of Clinical Pharmacy Services

Based on the research, the implementation of clinical pharmacy services in Class C hospitals, compared to the standards outlined in Ministry of Health Regulation No. 72 of 2016, shows several aspects that have been implemented and others that still require development. The observations from Hospital A, Hospital B, and Hospital C are summarized in the following table:

Table 2.  
Clinical Pharmacy Services

Activity	Hospital A	Hospital B	Hospital C
Assessment and prescription services	√	√	√
Medication history tracking	√	√	√
Medication reconciliation	√	√	√
Provision of drug information services (DIS)	√	√	√
Counseling	√	√	√
Ward rounds	√	√	√
Medication therapy monitoring (MTM)	√	√	√
Monitoring of adverse drug reactions (ADR)	√	√	√
Evaluation of drug use (EDU)	-	-	-
Dispensing of sterile preparations	-	-	-
Therapeutic drug monitoring (TDM)	-	-	-
% Realization to Standards	72.7%	72.7%	72.7%

### Determining Problem Priority

Problem prioritization is conducted using the Hanlon method

Table 3.  
Management of Pharmaceutical Supplies at Hospital A

List of Issues	BPR	OPR
Appropriateness of Drug Procurement	163	33
Number of Drug Items per Prescription	160	32
Frequency of Drug Procurement	110	22
Compliance with the National Essential Medicines List	90	18
Inactive Stock	60	12

Table 4.  
Clinical Pharmacy Services at Hospital A

List of Issues	BPR	OPR
No Drug Use Evaluation activities	128	32
Sterile dispensing activities not performed	128	32
No Therapeutic Drug Monitoring activities	128	32

Table 5.  
Management of Pharmaceutical Supplies at Hospital B

List of Issues	BPR	OPR
Number of Drug Items per Prescription	140	28
Appropriateness of Drug Procurement	83	17
Compliance with the National Essential Medicines List	75	15
Frequency of Drug Procurement	47	9
Inactive Stock	33	7

Table 6.  
Clinical Pharmacy Services at Hospital B

List of Issues	BPR	OPR
No Drug Use Evaluation activities	117	29
Sterile dispensing activities not performed	117	29
No Therapeutic Drug Monitoring activities	117	29

Table 7.

Management of Pharmaceutical Supplies at Hospital C

List of Issues	BPR	OPR
Number of Drug Items per Prescription	160	32
Appropriateness of Drug Procurement	120	24
Compliance with the National Essential Medicines List	80	16
Frequency of Drug Procurement	60	12
Inactive Stock	60	12

Table 8.

Clinical Pharmacy Services at Hospital C

List of Issues	BPR	OPR
No Drug Use Evaluation activities	132	33
No Therapeutic Drug Monitoring activities	120	30
Sterile dispensing activities not performed	72	18

## DISCUSSION

### Pharmaceutical Supplies Management

#### Selection Stage

Drug selection is a crucial role of pharmacists in the Pharmacy and Therapeutics Committee (PTC) to ensure the quality, effectiveness, and appropriateness of drugs that meet patient needs. In this study, it was observed that the conformity of available drugs with the National Essential Medicines List was 71% at Hospital A, 62.19% at Hospital B, and 54% at Hospital C, which is significantly below the national standard set at 76% (Satibi, 2014). The results of this study are consistent with the findings of (Hisran et al., 2022), which also identified discrepancies in drug procurement with the National Essential Medicines List. A commonly reported cause was specific specialist requests that were not always aligned with the formulary (Hisran Hamad & Salma, 2022).

#### Procurement Stage

In the procurement aspect, results show that the percentage of procurement conformity with actual drug use at Hospital A is 67.7%, Hospital B 91%, and Hospital C 95%, below the 100% standard. The frequency of drug item procurement is also low, only 7 times per year (standard: 12 times). These findings are consistent with the study by Maspekeh et al. (2018), which found an average procurement and actual use conformity percentage of 94.98%. The low procurement frequency is attributed to hospital funding limitations (Maspekeh et al., 2018). To address this, implementing the ABC VEN Analysis for procurement can improve efficiency (Eka Wuri Handayani et al., 2023).

#### Distribution Stage

The results show that stock card conformity with actual stock in all hospitals reaches 100%. The percentage of expired drugs is also 0%, indicating good stock management using the FIFO (First et al.) method. The study by Ayuningtyas et al. (2023) also highlights similar issues with inactive stock due to specialist recommendations that are rarely used (Ayuningtyas et al., 2023).

#### Usage Stage

At the usage stage, the number of drug items prescription at Hospital A (3.6), Hospital B (3.07), and Hospital C (2.9) exceeds the standard of 1.8-2.2 items, indicating polypharmacy. This aligns with the study by Ragil Setia Dianingati and Septimawanto (2015), which found an average of 3.2 drug items per prescription for JKN patients (Ragil Setia Dianingati & Septimawanto Dwi Prasetyo, 2015). The waiting time in this study has

met the existing Ministry of Health regulations, indicating that the three hospitals provide good service, which contrasts with the more common issues related to drug waiting times. The study by Sinta Pinastika (2023), titled Evaluation of The Quality of Pharmaceutical Care and Identification of Human Resources and Infrastructure in The Pharmacy Installation of Hospital in Sukoharjo in 2023, found that drug waiting times exceeded the standard (Pinasthika & Nugraheni, 2024). The waiting time at Manado Hospital also still needs to meet the standard (Angelina Puspitasari et al., 2021).

## **Implementation of Clinical Pharmacy Services**

### **Prescription Assessment and Services**

Prescription assessment aims to analyze potential drug-related issues and ensure that medication errors do not occur during patient administration. Medication errors often occur during the prescribing phase (Veren Maalangen et al., 2019). In this study, all hospitals have effectively conducted prescription assessments. Screening is performed upon receipt of the prescription and during medication dispensing to patients, in line with the standards set by the Ministry of Health of the Republic of Indonesia. This process helps minimize medication errors that could endanger patients.

### **Medication History Tracking**

Medication history tracking is essential to ensure safe and appropriate drug use for patients. The study results show that all hospitals track medication history for new Emergency Department patients and regular patients through medical records. This aligns with the established standards and helps ensure that no harmful drug interactions occur for patients. (Hamad & Bah, 2022)

### **Medication Reconciliation**

Medication reconciliation is important in preventing medication errors, especially for patients transitioning from one care unit to another (Halapy & Kertland, 2012). The study results show that medication reconciliation is carried out in all hospitals for inpatient and outpatient patients. This process helps ensure consistency of treatment and reduces the risk of errors.

### **Drug Information Services (DIS)**

Drug Information Services (DIS) are a key responsibility of pharmacists in providing accurate and independent information to patients and healthcare professionals. The study results indicate that DIS is implemented in all hospitals, although documentation of these activities is often overlooked due to limited human resources. Routine DIS activities include creating bulletins, leaflets, and posters distributed to patients and medical staff. This aligns with a study conducted at Sultan Agung Hospital in 2022, where DIS was effectively implemented according to standards (Pranata et al., 2022).

### **Medication Counseling**

Medication counseling is essential to ensure that patients and their families understand the prescribed therapy. Although counseling is provided in all hospitals, interview results indicate that it is often combined with ward rounds, especially for VIP patients. This is due to limited human resources and counseling facilities. Guidance and counseling are important, as they can greatly assist hospitalized patients undergoing treatment or medication selection. Thus, counseling services are crucial for patients receiving hospital care (Febriani et al., 2022). Research on patients shows pharmacist counseling impacts medication adherence, systolic blood pressure values ( $p=0.000$ ), and diastolic blood pressure values ( $p=0.000$ ) (Sabiti et al., 2023).

### **Visite**

Ward rounds are an important activity for directly monitoring patient conditions and ensuring the rationality of drug therapy. A study conducted in 2016 showed that pharmacist accompaniment during doctor rounds effectively reduced prescription error rates by 86% (Turnodihardjo et al., 2016). The study results show that ward rounds are conducted in all hospitals but only for VIP patients. Due to limited pharmacist resources, this activity does not include regular patients.

### **Medication Therapy Monitoring (MTM)**

Medication Therapy Monitoring ensures that the prescribed drug therapy is safe, effective, and rational. Although Medication Therapy Monitoring is carried out in all hospitals, interview results show that this activity is only performed for VIP patients with complications. One of the factors hindering the comprehensive implementation of Medication Therapy Monitoring is the limited number of pharmacists. This is also consistent with research conducted by (Nur Rasdianah & Faramita Hiola, 2022) which indicates that the limited availability of pharmacists causes Medication Therapy Monitoring to be unable to be performed for all patients.

### **Adverse Drug Reaction Monitoring (ADR Monitoring)**

Adverse Drug Reaction (ADR) monitoring is conducted to track potential side effects arising from medication use. The study results indicate that ADR monitoring is carried out in all hospitals, but only if there is a report or the patient receives therapy with a high potential for side effects. This is consistent with the research by (Tagne et al., 2023) in Australia, which mentions the low understanding of ADR reporting among patients, with only 10.4% of consumers aware of the ADR reporting scheme. Consumers who experience side effects are more likely to report ADRs to their doctor or pharmacist rather than to the drug manufacturer.

### **Drug Use Evaluation**

Drug Use Evaluation is an important program for systematically assessing drug use. However, the study results indicate that this program has not been implemented in the hospitals studied, primarily due to limited pharmacist resources and a lack of applied evaluation techniques. Human Resource Management is crucial in hospital businesses because HR is the driving force behind service operations. Proper and effective HR management can produce professional and talented human resources, thereby improving employee performance, which will impact organizational goals. As a result, patient services can run smoothly, contributing to the hospital's primary objectives (Sunari & Mulyanti, 2023).

### **Sterile Preparation Dispensing**

Sterile preparation dispensing requires specialized rooms and equipment to ensure that products remain sterile, as well as human resources that meet the required standards. The study results indicate that all hospitals have yet to implement sterile preparation dispensing due to limitations in human resources and inadequate facilities and equipment, including dedicated rooms and personal protective equipment. An evaluation of the implementation of sterile preparation dispensing in the inpatient department of Mega Buana Hospital, Palopo City, also yielded similar findings to this research. (Permatasari & Hasrawati, 2024)

### **Therapeutic Drug Monitoring**

Therapeutic drug monitoring aims to control drug dosages, especially for drugs with a narrow therapeutic index. The study results indicate that this activity has yet to be implemented in all hospitals due to adequate equipment and facilities limitations. The

complete or partial fulfillment of pharmaceutical services and drug use implementation suggests that these aspects are influenced by several factors, including individual, environmental, organizational, and managerial factors (Patanduk et al., 2021).

### **Problem Priority Determination at Hospital A**

#### **Management Stage**

Based on the Hanlon analysis at Hospital A, the most urgent issue in the management stage (Table 5) is the alignment between drug procurement and actual usage, with a Basic Priority Rating (BPR) of 163 and an Overall Priority Rating (OPR) of 33. This indicates a significant gap between the amount of drugs purchased and actual usage. The necessary solution is to allocate drugs more precisely and plan better. Hospital A has several issues in pharmaceutical supply management, as reflected in the results of the analysis. One of the main issues is the inconsistency between drug procurement and actual use, which is below the standard. The recommended solution to improve this is optimizing budget planning based on a more accurate analysis of drug usage and seeking additional funding sources. This aligns with research by (Karauwan et al., 2021), which states that available funding impacts drug services.

Another area for improvement is the average number of drug items per prescription, which exceeds the standard. The recommendation for this is to implement stricter prescription guidelines, including control over supplements and vitamins and a reminder system to reduce the risk of expired medications. Regarding the low frequency of drug procurement, it is recommended that procurement frequency be increased to monthly or bi-monthly to respond to emergency needs. A more advanced stock monitoring system is also suggested to estimate real-time needs. (Maspekeh et al., 2018) The low compliance with the National Essential Medicines List (NEML) is also a concern. To address this, regular training for doctors on the importance of compliance with the NEML, along with the involvement of the pharmacy team in the drug selection process, can help improve the situation. The high level of inactive stock is the final issue. The recommended improvement is conducting periodic drug use reviews and developing strategies to redistribute rarely used medications to facilities that need them more. (Lubis et al., 2024)

#### **Clinical Services**

At Hospital A, the clinical issues in Table 6 show three activities with the same points: BPR (128) and OPR (32). This highlights the importance of improving the management of Drug Use Evaluation, conducting sterile preparation compounding, and implementing Therapeutic Drug Monitoring. In clinical pharmacy services, Hospital A also faces several challenges. The absence of drug use pattern evaluation activities (Drug Use Evaluation) is a major issue. Therefore, the recommended solution is to hire additional pharmacy analysts and establish a more structured evaluation system. Sterile dispensing activities have also yet to be implemented at Hospital A. The recommendation for improvement is to invest in the necessary infrastructure and train technical staff to handle sterile preparation dispensing. Additionally, the absence of Drug and Dosage Monitoring (Therapeutic Drug Monitoring, TDM) at Hospital A is a concern. The recommended solution is to acquire the necessary laboratory equipment for Therapeutic Drug Monitoring and train medical staff in its use and the interpretation of monitoring results..

### **Problem Priority Determination at Hospital B**

#### **Management Stage**

The biggest issue at Hospital B, as shown in Table 7, is the number of drug items per prescription exceeding the standard, with a BPR of 140 and an OPR of 28. This indicates a tendency toward overprescribing, which increases the risk of patient side effects and raises

treatment costs. Hospital B also faces similar issues in pharmaceutical supply management. One prominent issue is that the average number of drug items per prescription exceeds the standard. To address this, recommended improvements include training doctors on rational prescribing and implementing a prescription verification system to ensure the drug quantity meets the standard. Drug procurement at Hospital B is also below the standard. To improve this, it is recommended that a priority-based approach be used in procurement budget allocation and that economical yet quality generic drugs be chosen. (Maspekeh et al., 2018) Another problem identified is the low compliance with the National Essential Medicines List (NEML). Forming a drug evaluation committee consisting of doctors and pharmacists to review drug selection and regularly promote the NEML can help address this issue. (Lubis et al., 2024) The low frequency of drug procurement also poses a challenge at Hospital B. A recommended solution is a flexible procurement system that adapts to changing needs, along with better coordination with suppliers. Hospital B's high amount of inactive stock requires regular stock audits and a more adaptive stock management policy to reduce the purchase of drugs with low usage potential.

### **Clinical Services**

As shown in Table 8, the most urgent clinical issues at Hospital B are the absence of Drug Use Evaluation activities, sterile dispensing, and Therapeutic Drug Monitoring, each with a BPR of 117 and an OPR of 29. Improvements in these three areas would significantly impact patient safety and treatment quality. In the area of clinical pharmacy services, Hospital B also faces an issue with the absence of Drug Use Evaluation activities. The recommendation is to recruit additional pharmacy experts focused on Drug Use Evaluation and develop infrastructure that supports regular evaluations. The lack of sterile dispensing requires modern sterilization facility upgrades and specialized staff training to manage sterile preparation dispensing. The absence of Therapeutic Drug Monitoring at Hospital B necessitates the acquisition of adequate laboratory equipment and training for medical staff to ensure that It is effectively implemented. (Lubis et al., 2024)

### **Problem Priority Determination at Hospital C Management Stage**

At Hospital C, the biggest issue, as shown in Table 9, is the number of drug items per prescription exceeding the standard (BPR 160, OPR 32). A tighter oversight of prescribing practices and a reduction in unnecessary drug use are needed as solutions. Hospital C also faces similar issues regarding the number of drug items per prescription exceeding the standard. Recommended improvements include implementing a more efficient drug usage tracking system and educating doctors on best practices for using supplements and vitamins. Drug procurement at Hospital C is inconsistent with standards. To address this, a more realistic budget based on prioritized clinical needs and discount programs or bulk purchasing can be developed. (Maspekeh et al., 2018) Low compliance with the National Essential Medicines List (NEML) can also be improved by involving more pharmacists in drug selection and facilitating discussions between doctors and pharmacists to align perspectives on the NEML. The low frequency of drug procurement at Hospital C requires improvement by involving the pharmacy department more in procurement planning and introducing a quarterly procurement schedule. (Lubis et al., 2024) The high level of inactive stock at Hospital C can be addressed with a redistribution program to other facilities in need and by reviewing prescription patterns recommended by specialists.

### **Clinical Services**

At Hospital C, the most urgent issues in Table 10 are the absence of Drug Use Evaluation (BPR 132, OPR 33) and Therapeutic Drug Monitoring (BPR 120, OPR 30). Both are top priorities for enhancing patient safety. In clinical pharmacy services, Hospital C faces

similar challenges. The absence of Drug Use Evaluation activities requires additional resources and technology to support regular implementation of Drug Use Evaluation. Therapeutic Drug Monitoring, which is not yet conducted at Hospital C, requires adequate laboratory equipment and medical staff training in implementation and interpretation. Sterile dispensing activities still need to be conducted. Appropriate equipment and facilities are needed to support the process, along with training for related staff. In general, similar recommendations for improvement apply to all Class C hospitals in Kebumen Regency. This was also found in the study by Muarlubis in 2024, which provided recommendations to conduct evaluations and budget adjustments, ensure adequate budget allocation, implement a competitive procurement system, enhance flexibility in drug procurement, and increase the capacity and number of human resources (Lubis et al., 2024).

## **CONCLUSION**

Conclusion of the Study on the Implementation of Law No. 72 of 2016 on Pharmacy Services in Class C Hospitals in Kebumen Regency Based on the evaluation of pharmaceutical supply management in three private Class C hospitals in Kebumen Regency, Hospital C is closest to the established standards, particularly in drug distribution and usage. However, several indicators still require improvement. Hospital A shows the largest discrepancies, particularly in aligning drug items with the National Essential Medicines List and the number of drug items per prescription. Improvements are still needed, especially in planning and drug procurement, to achieve efficiency and meet applicable standards. All three hospitals, Hospital A, Hospital B, and Hospital C, have implemented most clinical pharmacy services by the Ministry of Health Regulation No. 72 of 2016, with a realization rate of 72.7%. Although services such as prescription assessment, counseling, and medication reconciliation have been carried out, there are areas for improvement in implementing critical activities such as Drug Use Evaluation, sterile preparation dispensing, and Therapeutic Drug Monitoring due to limited facilities and expert resources. Hospitals need to focus on infrastructure development and human resource enhancement to enhance service quality. The Hanlon analysis shows that the main issues in pharmaceutical supply management and clinical pharmacy services in the three hospitals include drug procurement conformity, the number of drug items per prescription, and the implementation of Drug Use Evaluation, Therapeutic Drug Monitoring, and sterile dispensing. Improved budget planning, prescription oversight, facility upgrades, medical staff training, and technology adoption to support drug monitoring and evaluation are necessary. Addressing these issues will improve the quality of pharmacy services, patient safety, and the efficiency of drug use.

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