

**Evaluation of the Implementation of Pharmaceutical Service Standards at the Keerom District Health Center, Indonesia****Farhan Imba^{1*}, Wiwin Herdwiani¹, Tri Wijayanti¹**¹Master of Pharmacy, Faculty of Pharmacy, Universitas Setia Budi, Surakarta, Indonesia**ARTICLE INFO****Keywords:**

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A B S T R A C T

Pharmaceutical services are an integral part of health services that focus on optimizing drug use to achieve optimal therapeutic results. Regulation of the Minister of Health of the Republic of Indonesia Number 73 of 2016 concerning Pharmaceutical Service Standards at Health Centers is a reference in providing quality pharmaceutical services. This study aims to evaluate the implementation of pharmaceutical service standards at the Keerom District Health Center. This research uses a descriptive method. Data was collected through questionnaires and observation sheets at 6 Health Centers in Keerom District. Data were analyzed using SPSS to calculate percentages and average values. The research results show that the level of implementation of pharmaceutical service standards at the Keerom District Health Center is in the good category with an average value of 78-84%. The categories with the highest scores are the pharmaceutical preparation management category (84%) and the drug information services category (82%). The category with the lowest score is the quality assurance category (78%). In conclusion, the overall implementation of pharmaceutical service standards at the Keerom District Health Center has reached the good category. Improvement efforts need to be made in several categories, such as quality assurance, to achieve optimal pharmaceutical services.

1. Introduction

Pharmaceutical services are an integral part of the health care system that focuses on optimizing drug use to achieve optimal therapeutic results. This service includes various activities, such as procurement, storage, distribution, dispensing, and monitoring of drug use. Pharmacists can help patients choose the right medication for their condition, taking into account factors such as age, medical history, and allergies. Pharmacy staff can provide education to patients about how to use medication correctly, including dosage, frequency, and the correct way to take medication. Pharmacy staff can monitor patients for potential drug side effects and provide suggestions for preventing or managing them. Optimal pharmaceutical services can help patients achieve optimal therapeutic results and improve their quality

of life. Pharmaceutical service standards are guidelines established to ensure that the pharmaceutical services provided to patients are of high quality and safe. This standard covers various aspects, such as (1) Availability of medicines: The medicines needed by patients must be available at the health center or pharmacy in sufficient quantities; (2) Quality of medicines: The medicines available must be of good quality and meet established standards; (3) Competence of pharmaceutical personnel: Pharmaceutical personnel providing services must have adequate competency; (4) Systems and procedures: The systems and procedures used in pharmaceutical services must be clear, documented, and effective; and Monitoring and evaluation: Pharmaceutical services must be monitored and evaluated periodically to ensure that

the services provided comply with established standards.¹⁻³

Even though pharmaceutical services have an important role, there are several problems faced in pharmaceutical services in Keerom District and Indonesia, including (1) Limited resources: The Health Center in Keerom District still lacks pharmaceutical personnel, such as pharmacists and pharmacist assistants. This causes a high workload for existing pharmacy officers; (2) Inadequate infrastructure: Several health centers in Keerom District have inadequate infrastructure to support optimal pharmaceutical services, such as inadequate drug storage space and information systems that are not yet integrated; (3) Lack of patient education: There are still many patients who do not understand how to use drugs correctly. This can lead to irrational drug use and result in drug side effects. Evaluation of the implementation of pharmaceutical service standards at the Keerom District Health Center is very important to know the level of compliance with pharmaceutical service standards. This evaluation can help to find out the extent to which the Keerom District Health Center has implemented the established pharmaceutical service standards; (1) Identify gaps and areas for improvement: This evaluation can help to identify gaps between ideal pharmaceutical service standards and implementation in the field; (2) Encouraging improvement in the quality of pharmaceutical services: The evaluation results can be the basis for formulating recommendations and interventions needed to improve the quality of pharmaceutical services at the Keerom District Health Center.⁴⁻⁶ It is hoped that this research can provide useful information to improve the quality of pharmaceutical services at the Keerom District Health Center so that it can provide optimal service to patients.

2. Methods

This research uses a descriptive method. The population of this study were all pharmacists and pharmaceutical technical personnel who worked at 6 Health Centers in Keerom District. The research

sample was taken by total sampling. That is, all members of the population became the research sample. The research instruments used were: Questionnaire: Questionnaires were used to collect data about the knowledge and compliance of pharmacy staff with pharmaceutical service standards. The questionnaire was created and validated by experts in the pharmaceutical field. Observation sheet: Observation sheets are used to collect data about the availability of facilities and infrastructure, as well as systems and procedures used in pharmaceutical services. Observation sheets are made based on pharmaceutical service standards set by the Ministry of Health of the Republic of Indonesia.

Data was collected by: (1) Distributing questionnaires: Questionnaires were distributed to all pharmacists and pharmaceutical technical personnel at 6 Health Centers in Keerom District; (2) Observations: Observations were carried out on facilities and infrastructure, as well as systems and procedures used in pharmaceutical services at 6 Health Centers in Keerom District. Data were analyzed using SPSS to calculate percentages and average values. This research was conducted by paying attention to research ethics, including (1) Informed consent: Informed consent was obtained from all respondents before the research began; (2) Anonymity: The identity of the respondent is kept confidential; (3) Confidentiality: Research data is stored securely and is only used for research purposes.

3. Results and Discussion

Table 1 shows the results of the evaluation of the implementation of pharmaceutical service standards in 6 Health Centers in Keerom District. The average value for each pharmaceutical service standard ranges from 78-84%. The implementation level categories are divided into 4, namely: poor (<70%), quite good (70-79%), good (80-89%), and very good ($\geq 90\%$). Based on Table 1, all categories of pharmaceutical service standards at the Keerom District Health Center have an average score above 70%, so they are categorized

as Good. The average value of 84% indicates that the management of pharmaceutical preparations at the Keerom District Health Center is quite good. This shows that the Health Center has good systems and procedures for procuring, storing, and distributing medicines. An average value of 82% indicates that prescription services at the Keerom District Health Center are quite good. This shows that pharmacists and pharmaceutical technical personnel have provided prescription services in accordance with established standards. The average value of 82% indicates that drug information services at the Keerom District Health Center are quite good. This shows that pharmacists and pharmaceutical technical personnel have provided clear and complete drug information to patients. An average value of 81% indicates that clinical pharmacy services at the Keerom District Health Center are quite good. This shows that pharmacists and pharmaceutical technical personnel

have provided clinical pharmaceutical services in accordance with established standards. The average value of 78% indicates that quality assurance at the Keerom District Health Center still needs to be improved. This shows that Community Health Centers need to carry out regular monitoring and evaluation to ensure that the pharmaceutical services provided are in accordance with established standards. An average score of 80% indicates that health promotion and community empowerment at the Keerom District Health Center is quite good. This shows that the Health Center has carried out health promotion and community empowerment activities regarding rational drug use. The average value of 81% indicates that pharmaceutical management at the Keerom District Health Center is quite good. This shows that the Health Center has good systems and procedures for pharmaceutical management.

Table 1. Level of Implementation of pharmaceutical service standards at the Keerom District Health Center.

Pharmacy service standards	Average value	Category
Management of pharmaceutical preparations	84%	Good
Prescription service	82%	Good
Drug information service	82%	Good
Clinical pharmacy services	81%	Good
Quality assurance	78%	Good
Health promotion and community empowerment	80%	Good
Pharmaceutical management	81%	Good

Implementation of pharmaceutical service standards at Health Centers is very important to ensure the quality of pharmaceutical services provided to patients. Availability of pharmacists and pharmaceutical technical personnel who are competent and have qualifications in accordance with pharmaceutical service standards. An adequate budget is needed to support pharmaceutical service activities, such as the procurement of medicines and

medical devices and the training of pharmaceutical officers. Adequate pharmacy space for storing medicines, medical devices and pharmaceutical services, as well as supporting facilities and infrastructure such as computers, stationery and medicine cabinets. The commitment of Health Center leaders to improving the quality of pharmaceutical services is very important to encourage the implementation of pharmaceutical service standards.

Health Center leaders must show their support by (1) Providing adequate resources in the form of human resources, finance, and infrastructure; (2) Creating supportive policies: Policies that encourage the implementation of pharmaceutical service standards; (3) Monitor and evaluate: Conduct monitoring and evaluation of the implementation of pharmaceutical service standards.⁷⁻⁹

The competency of pharmacy officers in knowledge and skills related to pharmaceutical service standards is very important to ensure service quality. Pharmacy personnel must have adequate knowledge and skills in:

- (1) Pharmaceutical supplies management: Procurement, storage, and distribution of drugs;
- (2) Prescription services: Prescription screening, drug dispensing, and providing drug information;
- (3) Clinical pharmacy services: Monitoring drug use, providing counseling to patients, and education to the public.

Clear and well-documented systems and procedures can help pharmaceutical officers provide services that comply with standards. These systems and procedures must include: (1) Standard operating procedure (SOP): SOP for each pharmaceutical service activity; (2) Guidelines and manuals: Guidelines and guidelines to assist pharmacy personnel in carrying out their duties; (3) Documentation system: A good documentation system for recording and reporting pharmaceutical service activities. Implementation of pharmaceutical service standards at the Health Centers can be influenced by several factors, such as availability of resources, leadership commitment, competency of pharmaceutical officers, and systems and procedures. It is important to pay attention to all of these factors so that the implementation of pharmaceutical service standards can run well and optimally.¹⁰⁻¹²

Based on the research results, the Quality Assurance category is one of the categories that need to be improved at the Keerom District Health Center. Monitoring and evaluation (monev) is an important activity to ensure that pharmaceutical services at Health Centers run according to established standards. A comprehensive monitoring and

evaluation system must cover all aspects of pharmaceutical services, such as the management of pharmaceutical preparations, prescription services, and clinical pharmaceutical services. Monev must be carried out regularly, at least every semester, to ensure that pharmaceutical service standards are always met. Monitoring and evaluation results must be analyzed to identify deficiencies in pharmaceutical services. Corrective action must be taken immediately to address these deficiencies.¹³⁻¹⁶

Training for pharmacists and pharmaceutical technical personnel is very important to increase their knowledge and skills in the field of quality assurance. This training can help pharmacists and pharmaceutical technical personnel understand the concepts and principles of quality assurance in pharmaceutical services. This training can help pharmacists and pharmaceutical technical personnel in carrying out monitoring and evaluation of pharmaceutical services using appropriate methods and tools. This training can assist pharmacists and pharmaceutical technical personnel in taking appropriate corrective action to overcome deficiencies in pharmaceutical services. The commitment of Health Center leadership is very important in supporting the improvement of the quality assurance of pharmaceutical services. Health Center leaders can demonstrate their commitment by Establishing policies that support quality assurance. These policies can take the form of policies regarding monitoring and evaluation, training, and allocating resources for quality assurance. Providing adequate resources: Health Center leaders must provide adequate resources for monitoring and evaluation activities, training and improving the quality of pharmaceutical services; Rewarding pharmacists and pharmaceutical technical personnel who excel in quality assurance: This can motivate them to continuously improve the quality of pharmaceutical services. Increasing the quality assurance category at the Keerom District Health Center can be done by increasing monitoring and evaluation activities, training pharmacists and pharmaceutical technical

personnel, and strengthening the commitment of the community health center's leadership. With these efforts, it is hoped that the quality of pharmaceutical services at the Keerom District Health Center can continue to improve and provide optimal service to patients.¹⁷⁻²⁰

4. Conclusion

Overall, the implementation of pharmaceutical service standards at the Keerom District Health Center is quite good. However, there are still several categories that need improvement, such as quality assurance.

5. References

1. Ministry of Health of the Republic of Indonesia. Regulation of the Minister of Health of the Republic of Indonesia Number 73 of 2016 concerning Pharmaceutical Service Standards at Community Health Centers. Jakarta: Ministry of Health of the Republic of Indonesia. 2016.
2. World Health Organization. Pharmaceutical services: a vital component of health care. Geneva: World Health Organization. 2017.
3. Astuti EKA, Sariatmi A, Agushybana F. Implementation of patient drug prescription services in hospital pharmacy installations: Has it been managed properly to reduce waiting time?. *Sci Period J Public Health Coastal Health*. 2023; 5(1): 189-203.
4. Dharma CKV, Sunarni T, Purwidyaningrum I. Analysis of drug management and improvement strategies using the Hanlon Method at the Pharmacy Installation of Dr. Oen Kandang Sapi Hospital, Surakarta, Indonesia. *Open Acc Indo J Med Rev*. 2024; 4(1): 583-8.
5. Setyoningsih H, Yudanti GP, Hidayati R, Fitriyaningsih S. Potential for incompatibility and prescription drug interactions in pediatric patients at RSI (Islamic Hospital) Sultan Hadlirin, Jepara, Indonesia. *Open Acc Indo J Med Rev*. 2023; 3(6): 521-7.
6. Imelia L, Oetari RA, Harsono SB. Evaluation of drug management and improvement strategies using the Hanlon method in the pharmacy installation of Dr. Moewardi General Hospital, Surakarta, Indonesia. *Open Acc Indo J Med Rev*. 2023; 3(6): 541-54.
7. Ndjurumbaha EMN, Widodo GP, Rahmawati I. Evaluation of drug management at the pharmacy installation of "X" Regency Health Office Indonesia in 2021. *Open Acc Indo J Med Rev*. 2023; 3(5): 477-84.
8. Suryati. Development of a reliable information system for medical device inventory in hospitals: a systematic literature review. *Open Acc Indo J Med Rev*. 2023; 3(6): 534-40
9. Anggesta PM, Candra H, Oktaviani F. Management evaluation of expired and slow-moving medications at Hospital X in Batam City. *Open Acc Indo J Med Rev*. 2024; 4(1): 566-8.
10. Hardiyanti E, Agustina R. Implementation of pharmaceutical service standards in Surabaya Health Centers. *J Pharm Health Serv Manag*. 2022, 10(2), 81-90.
11. World Health Organization. Guidelines for good pharmacy practice. Geneva: World Health Organization. 2022.
12. International Pharmaceutical Federation. FIP guidelines on good pharmacy practice: Standards for quality assurance. The Hague: Int Pharm Federation. 2020.
13. National Association of Boards of Pharmacy. Model pharmacy practice act. Washington, DC: National Association of Boards of Pharmacy. 2021.
14. American Pharmacists Association. Medication errors: Causes, prevention, and reporting. Washington, DC: American Pharmacists Association. 2021.
15. Pestka DL, Paterson NL, Brummel AR, Norman JA, White KM. Barriers and

facilitators to implementing pharmacist provided comprehensive medication management in primary care transformation. *Am J Health Syst Pharm.* 2022; 79(15): 1255-65.

16. Foster B, Spillane J, Abuzoor A, Zraik M. Implementation and outcomes of an ambulatory care pharmacist service: application of an implementation science framework. *Am J Health Syst Pharm.* 2023; 80(12): 772-8.
17. Seston EM, Ashcroft DM, Lamerton E, Harper L, Keers RN. Evaluating the implementation and impact of a pharmacy technician supported medicines administration service designed to reduce omitted doses in hospitals: a qualitative study. *BMC Health Serv Res.* 2019; 19(1): 325.
18. Sinopoulou V, Rutter P, Price G, Heald V, Kaba S. Implementing an emergency department pharmacy service and its effect on medication safety. *Int J Pharm Pract.* 2021; 29(4): 394-6.
19. Gill TK, Thornton LM, Schroeder TR, Garrelts JC, Schminke BC. Implementation and evaluation of a team based pharmacy practice model in a community health system. *Am J Health Syst Pharm.* 2019; 76(7): 470-7.
20. Pillinger KE, Treptow CF, Dick TB, Jones CMC, Acquisto NM. Development and implementation of pharmacy department and pharmacy resident well-being programs. *Am J Health Syst Pharm.* 2022; 79(16): 1337-44.