

Management of Expired Medications at the Pharmacy Department of Hikmah Sawi Maternity and Children's Hospital

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ABSTRAK

Pengelolaan obat di departemen farmasi rumah sakit sangat penting untuk memastikan kualitas obat. Pengelolaan obat yang efektif dalam pelayanan kesehatan sangat penting untuk menjamin bahwa obat-obatan memenuhi standar yang dibutuhkan dan kebutuhan aktual, termasuk penanganan yang tepat terhadap obat yang rusak atau kadaluwarsa. Tujuan penelitian ini adalah untuk memahami pengelolaan obat kadaluwarsa di Departemen Farmasi Rumah Sakit Bersalin dan Anak Hikmah Sawi. Metode yang digunakan adalah observasi kualitatif, yang melibatkan observasi langsung dan wawancara. Hasil observasi terhadap sistem pengelolaan obat kadaluwarsa di fasilitas pelayanan kesehatan menunjukkan bahwa semua tahapan proses telah dilakukan sesuai dengan Pedoman Pengelolaan Obat Rusak dan Kadaluwarsa di Fasilitas Pelayanan Kesehatan yang dikeluarkan oleh Kementerian Kesehatan Republik Indonesia. Kesimpulan dari penelitian ini adalah bahwa pengelolaan obat kadaluwarsa di Departemen Farmasi Rumah Sakit Bersalin dan Anak Hikmah Sawi sudah efektif.

Kata Kunci: *Kedaluwarsa, Obat-obatan, Farmasi, Inventaris, Keamanan*

ABSTRACT

Medication management at the hospital pharmacy department is crucial to ensure drug quality. Effective medication management in healthcare services is essential to guarantee that the drugs meet both the required standards and actual needs, including proper handling of damaged or expired medications. The aim of this study is to understand the management of expired medications at the Pharmacy Department of Hikmah Sawi Maternity and Children's Hospital. The method used is qualitative observational, involving direct observation and interviews. Observation results on the expired medication management system at the health service facility show that all stages of the process have been carried out in accordance with the Guidelines for Managing Damaged and Expired Medications in Health Service Facilities issued by the Ministry of Health of the Republic of Indonesia. The conclusion of this study is that the management of expired medications at the Pharmacy Department of Hikmah Sawi Maternity and Children's Hospital is already effective.

Keywords: *Expired, Medication, Pharmacy, Inventory, Safety*

INTRODUCTION

According to Law No. 44 of 2009, a hospital is one of the health service facilities that provides comprehensive care for individuals, including inpatient, outpatient, and emergency services (Nopita et al., 2024a). Hospitals must have good management to provide optimal services to the community, and one of the key elements of hospital management is pharmaceutical management (Manampiring et al., 2023).

Pharmaceutical services are directly provided to patients and are responsible for patient treatment, so hospitals are expected to deliver optimal pharmaceutical care to achieve definite outcomes and improve patients' quality of life (Yunarti, 2023). Pharmaceutical services are considered comprehensive when there is sound medication management, which adds value to a hospital, particularly in pharmacy services. One key aspect is drug storage, as it directly influences

effective medication management (Yunarti, 2023). Effective medication management in health services is important to ensure that drug needs are met appropriately and that drug quality is maintained, including the proper handling of damaged or expired medications (Citraningtyas et al., 2024). Medication management at the hospital pharmacy department is very important to ensure drug quality. In addition to maintaining pharmaceutical availability in good condition, proper storage of pharmaceutical preparations is also essential to prevent drugs from being damaged, expiring, becoming dead stock, and to ensure optimal drug turnover within a year (Handayani et al., 2022). Medication management is a core aspect of hospital administration, particularly in handling the hospital’s drug inventory, with the aim of preventing stockouts and stagnant stock. If these issues occur, they can lead to inefficiency and have negative medical and economics consequences (Irawan et al., 2024).

Poor medication management can lead to drug shortages, which negatively affect patient care. In addition, inadequate storage practices can result in medication errors that endanger patients, as well as expired or wasted stock. These issues can have negative medical, economic, and social impacts on the hospital (Ramadhani et al., 2022). Other potential impacts include increased hospital operational costs, as well as risks to patient safety and the quality of care (Nopita et al., 2024).

METHODS

This study is qualitative observational research that uses direct observation at the hospital pharmacy department, conducted in accordance with standard good and proper medication management practices, supported by supplementary data such as medication stock cards and drug data from the hospital’s SIMRS system. The research instruments used are observation sheets, interview guidelines, and documentation.

RESULTS AND DISCUSSION

Before comparing the physical medications with the data in SIMRS, an observation was first conducted to check the alignment between the actual medications and the hospital’s SIMRS data.

Table 1. Observation Results on Expired Medication Management

No	Guidelines for Managing Damaged and Expired Medications in Health Service Facilities	Compliant	Non-Compliant	Remarks
1	Identification of damaged or expired medications	√		
2	Prepare a list of damaged or expired medications to be destroyed	√		
3	Damaged or expired medications are stored separately from other medications	√		
4	Damaged or expired narcotics, psychotropics, and precursor medications are stored separately from other damaged or expired medications	√		There are no expired narcotics, psychotropics, or precursor medications
5	Conduct pre-destruction by removing the medication from its primary packaging	√		
6	Solid drug preparations are crushed, and it is ensured that dust particles are not released into the air	√		

7	Semi-solid and liquid drug preparations are removed from their containers	√		
8	Containers of liquid and semi-solid preparations have all labels and caps removed, and the containers are destroyed by cutting, shredding, or breaking them	√		
9	Prepare a Minutes of Destruction document in two copies, addressed to: a. PT. Wastec Internasionak b. Hospital Archive	√		
10	Receive feedback, the final destruction minutes, and photos of the destruction process from the third party	√		

Based on the observation of the expired medication management system at the health service facility, it is evident that all activity stages have been carried out in accordance with the Guidelines for Managing Damaged and Expired Medications in Health Service Facilities issued by the Ministry of Health of the Republic of Indonesia (Ministry of Health of the Republic of Indonesia, 2021). The initial step carried out was identifying damaged or expired medications located in the pharmacy department, drug depots, and pharmaceutical warehouse. This identification activity is carried out regularly at the end of each month, coinciding with the pharmacy staff's stock opname. The results are then reported to the responsible pharmacist as part of quality control and compliance with procedures.

The separation and storage principles established at the hospital, as stated in point 3 of the observation results table, are fundamental in ensuring the safety and quality of pharmaceutical preparations. This step aims to prevent the reuse of medications that no longer meet quality and safety standards (BPOM, 2019). Research findings on medication stock management evaluations in various hospitals emphasize the importance of implementing this separation procedure. In practice, medications approaching their expiration date are placed in a designated area with clear labeling to facilitate return or destruction processes (Setiyaningrum et al., 2021). Thus, adherence to this procedure reflects the level of professionalism and effectiveness of the hospital's pharmaceutical management in maintaining service quality and patient safety.

The management of damaged and expired medications at Hikmah Sawi Maternity and Children's Hospital is carried out through two main strategies in pharmaceutical logistics: returning medications to the distributor and destruction by a licensed third party. The implementation of these two mechanisms demonstrates the hospital's commitment to balancing efficient resource use with compliance with legal regulations concerning safety and pharmaceutical waste management.

Returning medications (retur) to the distributor is a preventive measure to reduce losses caused by expiration. This strategy is typically governed by an agreement between the hospital and the Pharmaceutical Wholesaler (PBF), which sets out provisions such as submission deadlines, refund values, and administrative requirements (Lisni et al., 2021). This study shows that return (retur) serves as an effective stock control measure that can reduce the risk of financial loss, provided it is supported by a strict and scheduled expiration date monitoring system (Setiyaningrum et al., 2021). Second, if return is not possible, destruction of the medication through a licensed third party becomes a mandatory obligation. This step ensures that pharmaceutical waste, classified as hazardous and toxic waste (B3), is destroyed in accordance with safe environmental procedures

(Ministry of Health of the Republic of Indonesia, 2021). The destruction process must be accompanied by a Minutes of Destruction (BAP) as proof of accountability and compliance audit (Lisni et al., 2025). In accordance with the (WHO, 2000) guidelines, the recommended destruction methods include high-temperature incineration or encapsulation to ensure active substances are fully degraded and do not contaminate the environment. Thus, the implementation of these two mechanisms shows that the management of damaged and expired medications at Hikmah Sawi Maternity and Children's Hospital follows the principles of Good Pharmacy Practice and pharmaceutical logistics governance oriented toward quality, safety, and environmental sustainability.

To improve the efficiency of drug management and reduce losses due to expiration, control focus needs to shift from the disposition stage (return or destruction) toward preventing expiration from occurring. This prevention relies on a planned, disciplined, and continuous stock monitoring system. The widely recommended principles are the FEFO (First Expire, First Out) and FIFO (First In, First Out) methods, with FEFO being more effective in ensuring that medications with the nearest expiration dates are used first (Lisni et al., 2025).

The implementation of the monitoring system at Hikmah Sawi Maternity and Children's Hospital can be strengthened through several strategic steps. First, establish an early warning system, either manual or digital, to detect medications with less than six months until expiration, enabling prompt actions such as return or redistribution to units with high usage rates (Ministry of Health of the Republic of Indonesia, 2021). Second, conduct regular stock audits that emphasize checking expiration dates across all drug depots and pharmaceutical warehouses to prevent accumulation and overstocking (Setiyaningrum et al., 2021). Third, perform analysis of medication consumption patterns based on actual usage data to adjust procurement planning for the following period, particularly for medications with fluctuating demand (Lisni et al., 2025).

By implementing these strict, data-driven stock monitoring measures, health service facilities can significantly reduce the risk of dead stock, lower operational costs, and enhance the quality and sustainability of pharmaceutical services.

CONCLUSION

Based on the research findings, the management of expired medications at the Pharmacy Department of Hikmah Sawi Maternity and Children's Hospital is already effective and in accordance with applicable regulations. There are no significant losses due to damaged or expired medications, as they have been properly managed.

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