# A STUDY OF MEDICINE MANAGEMENT IN PUBLIC HEALTH CENTER

Nur Mila Sari<sup>1</sup>, Muhammad Ryman Napirah<sup>2</sup>, Widy Try Windy<sup>3</sup>

<sup>1,2</sup>Universitas Tadulako, Jl. Soekarno Hatta No.KM 9, Palu, Indonesia
<sup>3</sup>Institut Teknologi Kesehatan dan Bisnis Graha Ananda, Jl. Singgani No. 6, Palu, Indonesia Corresponding Email: nurmilasari@untad.ac.id

#### ABSTRACT

In Indonesia, drug expenditures that have been roughly fourty percent are seen as exorbitant. Drug availability is decreased, pharmaceuticals become scarce, a large number of drugs accumulate as a result of poor drug planning, and irrational drug use drives up drug costs. The aim to Find out about the Public Health Center's drug needs planning, distribution, storage, and recording and reporting is the goal. design of qualitative research using a case study methodology. In their working area, the Public Health Center's director served as the study's primary informant. The result is Public Health Center and the Health Office collaborate to plan for drug needs; nonetheless, some medications are required but not included in the e-catalog. The Public Health Center's drug storage is set up according to the FIFO and FEFO systems, but there are no dedicated cabinets for narcotics and psychiatric medications, and the air temperature does not yet meet regulations. Unavailable medications cause problems with patient medicine distribution, leading to ineffective and inefficient services. Due to a shortage of pharmaceutical health workers, drug recording and reporting are not completed on time. According to the study's findings, there are challenges with drug management at the Public Health Center, ranging from organizing drug requirements, storing, distributing, and recording and reporting drugs.

Keywords: Management, Drug, Public Health Center

#### ABSTRAK

Pengeluaran farmasi Indonesia sekitar 40% dan dianggap tinggi. Manajemen pengobatan yang tidak efisien menyebabkan berkurangnya ketersediaan obat, kekurangan obat, penumpukan banyak obat akibat jadwal pemberian dosis yang tidak tepat, serta meningkatnya biaya obat akibat penggunaan obat yang tidak rasional Tujuan dari penelitian ini adalah untuk mengevaluasi kebutuhan obat, penyimpanan dan penggunaan obat, distribusi obat, pengumpulan obat dan rencana pelaporan di pusat kesehatan masyarakat. Desain penelitian kualitatif dengan pendekatan studi kasus yang dilakukan pada tahun 2017 di Seluruh Puskesmas Wilayah Kerja Dinas Kesehatan Kota Palu. Informan utama untuk penelitian ini adalah direktur pusat kesehatan masyarakat Studi ini menemukan bahwa meskipun perencanaan kebutuhan obatobatan di pusat kesehatan masyarakat dilakukan bekerja sama dengan layanan kesehatan, beberapa obatobatan dibutuhkan tetapi tidak termasuk dalam katalog elektronik Penyimpanan obat-obatan di pusat kesehatan dilakukan berdasarkan sistem FIFO dan FEFO Namun, keterbatasannya mencakup suhu yang tidak memenuhi persyaratan dan kurangnya lemari khusus untuk narkotika dan zat psikotropika. Masih terdapat obat-obatan kosong yang menghambat penyaluran obat kepada pasien dan mempengaruhi efektivitas serta efisiensi pelayanan. Kesimpulannya, masih terdapat kendala dalam pengelolaan obat di puskesmas, mulai dari perencanaan kebutuhan, penyimpanan, penyaluran, pengambilan dan pelaporan obat, yang berujung pada terjadinya kadaluarsa.

Kata Kunci : Pengelolaan, Obat, Puskesmas

\*Corresponding Author: nurmilasari@untad.ac.id

# **INTRODUCTION**

A drug is a necessary component that must be provided in healthcare since its availability will either improve or worsen the quality of services (Chaira, *et al.*) The World Health Organization (WHO) estimates that the cost of drugs in underdeveloped nations accounts for between 24-66% of overall health spending. Approximately 40% of Indonesia's medicine expenditures are classified as high expenses. The Public Health Center's pharmacy service is an attempt to raise the standard of healthcare services, with the community as the primary focus. Drug management, which begins with the planning of drug needs, drug distribution, storage, recording, reporting, and archiving, is one of the pharmacy services (Hiborang, *et al*).

Drug management is done to guarantee that medications are available effectively and efficiently, used sensibly, can enhance the skills of pharmaceutical employees, and can provide quality control services. Research by Rosmania & Supriyanto (2015), shows that ineffective medication management can lead to a stagnant and stockpiling drug supply because improper storage of the medicine increases the risk of damage and expiration, which affects health services.

Based on the preliminary study conducted at one of Public Health Center in Palu there are 179 oxytocin injection and 1,000 attapulgite are two examples of medications that expired in 2017. Other medications, like ambroxol, gentian violet, eye ointment, and ear drops, have limited supply, which causes stock depletion and prevents patients from getting them. The purpose of this study is to ascertain the drug management practices at Public Health Center in Palu City.

#### METHOD

This research using are qualitative research with a case study approach and conducted in 2017. The research was located in Public Health Center in Palu City. Purposive sampling was utilized to identify informants, and in-depth interviewing techniques were employed to gather data. The principal informant for this study was the head of the Public Health Center. Other informants included the head of the pharmacy department of the Palu City Health Office, the head of the Palu City Pharmacy Warehouse Installation, and officers of the integrated Service Center in the Public Health Center Working Area.

## **RESULTS AND DISCUSSION**

#### Planning of drug needs

According to the findings, the Public Health Center's pharmacist, head, PTP team (Public Health Center Level Planning), and officer in the polyclinic room are all involved in planning the drug needs of the facility. They do this by incorporating suggestions from the Integrated Service Center and examining related programs that are proposed while taking the e-catalog into

consideration.

Drug needs are planned by the Public Health Center's pharmacist, the Head of the Public Health Center, the PTP team, and the officers in the polyclinic room. Proposals from the Integrated Service Center and each polyclinic are included, and proposals from related programs are examined by adjusting to the e-catalog. The issue is that some drugs are still required but are not listed in the e-catalog. Epidemiological and consumption methodologies are used in the basic planning of pharmacological demands. At the start of every year, a compilation or recapitulation step is used to plan the drug needs. This compilation of drug usage data serves as the foundation for determining the ideal stock, as well as for viewing the stock buffer and the remaining drug stock from the past. This is in accordance with the theory by Irmawati (2014) that the planning system is founded on epidemiological, morbidity, and consumption approaches; priority analysis based on the ABC and VEN methodologies is required to balance purchase with the current budget.

According to research by Kumar, et. al., (2013), this results in an interesting and innovative solution that is currently being tested related to specific needs information on the limited pharmaceutical supply chain. The majority of logistics for drug needs is handled through third-party providers and therefore specific knowledge needs to be improved for the appropriate time, request, and use<sup>6</sup>.

Research results by Djuna, et. al., (2014) said that the Public Health Center plans its drug needs based on commonly used drugs, which are subsequently recorded on LPLPOs (Request Sheets and Usage Sheets of Drugs) and sent to the Regency/City Health Office.

# **Drug Storage**

The Public Health Center's pharmacist and assistant pharmacist were found to be involved in medication storage. Public Health Center's medication storage facility is a room that is not 2 by 3 meters, which is the minimum size required for pharmaceutical drug buildings. The medications are kept only according to preparation type and not in alphabetical order. These result from Public Health Center's lack of oversight.

Pharmacists and pharmacist assistants are involved in drug storage. The Public Health Center's medicine storage facility has a room that is only 2 by 3 Meters<sup>2</sup>, which is less than the minimum warehouse space required for pharmaceutical store buildings, which is 3 by 4 Meters<sup>2</sup>. The requirement for pallets and special cabinets for narcotics and psychiatric pharmaceuticals are barriers to drug storage. The preparation form is divided into pill and liquid forms, and the medications are stored in Public Health Center in alphabetical order. The FIFO and FEFO systems are also used to prepare drug storage.

This is in line with the theory of Irmawati (2014) that pharmaceutical supplies are stored

in FEFO and FIFO systems, and that knowledge of the storing system, spatial planning, and drug warehouse processes is provided.

This is in line with research by Larasati et. al., (2013), Drugs are chosen by the pharmacist and then stored in warehouses at the proper temperature in accordance with protocols. They are arranged alphabetically by type and preparation form, and First In First Out/First Expired First Out dictates that the first incoming goods or goods that are closer to the expiration date should be sent out first.

# **Drug Distribution**

The findings indicated that the Public Health Center's pharmacist and assistant pharmacist participated in drug distribution, as did all of the Integrated Service Center's supervisors. Drug distribution begins with the installation of the Palu City Pharmacy Warehouse and continues to Public Health Center before being re-distributed to the Integrated Service Center and units by going straight to the warehouse and being noted on supply cards. Patients can also obtain the medication with a prescription from their physician.

In the Public Health Center, drug distribution is handled by pharmacists, pharmacist assistants, and the Integrated Service Center manager. Every day, the distribution flow is carried out while patients are being served and modified to meet their demands. However, not all necessary medications are available when they are delivered, particularly when the pharmacist is treating patients and the remedy is a prescription to purchase the medication elsewhere. This is a barrier associated with the distribution of drugs. This is in accordance with the theory by Siregar & Amalia (2003), that a full drug distribution system in the room includes drug preparation operations in accordance with the doctor's prescription, that nurses produce the drugs from supplies in the room, and that the patient receives the drug dosages/units straight from the supply container.

A study by Husnawati, et. al., (2016), Additionally, it was discovered that, with the exception of narcotics and similar substances, drug distribution gives preference to medications that Auxiliary Health Centers frequently employ. Patients should be taken right away to the Public Health Center if they require the medication. The purpose of this is to prevent drug misuse.

The research by Murukiah (2012) claimed that the employment of pharmacist handbooks, electronic passbook systems for the distribution of illegal pharmaceuticals, centralized storage in the warehouse, mass procurement systems, quality assurance of system components, and routine medication availability monitoring are additional concerns of concern in this study.

### Drug Recording, Reporting, and Archiving

The Public Health Center's pharmacist and assistant pharmacist were involved in drug recording, reporting, and archiving, according to the data. All phases of drug management, including planning, storing, and distributing throughout a year, are covered by the Public Health Center's drug recording, reporting, and archiving process. The Public Health Center's observations, reporting, and recording processes have been digitized to streamline data administration; nevertheless, manual recording is still done as well.

Drugs are recorded, reported, and archived by pharmacists and pharmacy assistants. Every step of the drug management process that is planning, asking, receiving, storing, and distributing was completed. The Public Health Center has to match the availability of pharmaceuticals at the Public Health Center, which causes them to be tardy in processing data due to the Integrated Service Center's poor pace of reporting to the Public Health Center. A computer is then used to recapitulate the drug request utilizing The Usage Sheet and Receipt Sheet of Drug, which will thereafter be the next drug need planning step. The receipt sheet was utilized at the reception, archived for the Public Health Center, and then entered into the supply card. It was also stored and distributed.

This is in accordance with the theory by Rikomah (2016), that all pharmacy operations must be recorded, and that what is written should be followed; this helps to monitor the assessment of pharmaceutical preparations and avoids errors in drug used.

This is in line with the research by Lumintang, et. al., (2016), The Usage Sheet and Receipt Sheet of Drug is a form that must be completed in order to report the quantity of medications entered, the quantity of medicines provided or used, and the quantity of pharmaceuticals that are currently in use. The Public Health Center completes the LPLPO, which is subsequently reported to the Pharmacy Warehouse.

### CONCLUSION

Using e-catalog-based drug selection, epidemiology and consumption patterns are used to plan drug needs. Obstacles include the fact that some medications are required but not included in the alphabetically ordered e-catalog, that the preparation method is not followed because no palettes are owned, that the temperature is not suitable, and that there is no dedicated cabinet for narcotics and psychotropic drugs. In addition to recording, reporting, and archiving at every stage of drug management, as well as daily during patient service and monthly by writing Usage Sheet and Receipt Sheet of Drug, drug distribution is tailored to the needs of the Integrated Service Center and patients during service. The challenge is that reporting is not done promptly.

### ACKNOWLEDGMENTS

Thank you to the Head of Bulili Health Center, Mrs. Susanti, who has allowed the researcher to conduct research at Bulili Health Center, South Palu District, Palu City.

# REFERENCES

- Chaira S, Zaini E, Augia T. (2016). *Evaluasi Pengelolaan Obat pada Puskesmas di Kota Pariaman*. Jurnal Sains Farmasi dan Klinis. 3(1):35–41.
- Djuna S, Arifin MA, Darmawansyah. (2014). Studi Manajemen Pengelolaan Obat di Puskesmas Labakkang Kabupaten Pangkep. Administrasi Kesehatan Indonesia. 3(2):1–13.
- Husnawati, Aryani F, Juniati A. (2016) Sistem Pengelolaan Obat di Puskesmas Di Kecamatan Rambah Samo Kabupaten Rokan Hulu-Riau. Journal of Pharmacy. 13(1):71–83.
- Irmawati LI. (2014). *Buku Ajar Petunjuk Praktis: Manajemen Logistik Farmasi di Rumah Sakit*. Surabaya: Universitas Press: Institut Ilmu Kesehatan.
- Peraturan Menteri Kesehatan Republik Indonesia Nomor 30 Tahun 2014 Tentang Standar Pelayanan Kefarmasian di Puskesmas.
- Kumar S, Dieveney E, Dieveney, A. (2013). Reverse Logistic Process Control Measures For The Pharmaceutical Industry Supply Chain. International Journal of Productivity and Performance Management. 58(3):188-204.
- Larasati I, Susilo H, Riyadi. (2013). Analisis Sistem Informasi Manajemen Persediaan Obat. Jurnal Administrasi Bisnis. 1(1):57–67.
- Lumintang PD, Maramis FR, Kolibu FK. (2016). *Analisis Pengelolaan Obat di Puskesmas Tompaso Kabupaten Minahasa*. Jurnal Kesehatan Masyarakat Universitas Sam Ratulangi Manado. 2(1):1–9.
- Murukiah, Arumugam. (2012). A Framework for Public Drug Distribution System In India. The Journal International Journal of Logistics Systems And Management. 13(1):317-341.
- Nurniati L, Lestari H, Lisnawaty. (2016). *Studi Tentang Pengelolaan Obat di Puskesmas Burangan Kabupaten Wakatobi*. Jurnal Kesehatan Masyarakat. 1(1):1–9.
- Rikomah, Setya E. (2016). Farmasi Klinik. Yogyakarta: Deepublish.
- Rosmania FA, Supriyanto S. Analisis Pengelolaan Obat Sebagai Dasar Pengendalian Safety Stock Pada Stagnant dan Stockout Obat. Jurnal Administrasi Kesehatan Indonesia. 3(1):1–10.
- Sasongko H, Octadevi OM. (2016). Overview Drug Procurement Management Indicators

In Sukoharjo Central Java Hospital. Journal Of Pharmaceutical Science and Clinical Research. 1(1): 21–28.

Siregar, Charles JP, Amalia L. (2003). *Farmasi Rumab Sakit: Teori dan Penerapan Cetakan I.* Jakarta: Buku Kedokteran EGC.