

DIFFERENCES MONTH OF STOCK CHEMOTHERAPY BASED ON CONSUMPTION AND MORBIDITY METHODS AT MRCCC HOSPITAL

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ABSTRAK

Drug management is a cycle of activities starting from selection, needs planning, procurement, receipt, storage, distribution, destruction and withdrawal, control and administration. The value of chemotherapy medicines' month of stock in MRCCC Siloam Hospitals Semanggi is high and is not comply to Head Office's standard of 0.66 months. Thus, an evaluation is needed to determine the differences between calculating Month of stock using consumption method and morbidity method. This is a retrospective, Empiric study using descriptive- comparative method with the purpose of explaining the most effective planning method to supply chemotherapy medicines. The study compares Month of stock of chemotherapy medicines using consumption and morbidity method. The result shows average value of Month of stock using morbidity method is 1.853 months and 2.125 months using consumption method. The morbidity method have lower avergae Month of stock compares to consuption method. Planning with a combination of the two methods obtained a Month of stock value of 1.41 months. Profitable than normal delivery. Efficiency is needed so that the hospital can develop better services in the future. The Month of Stock using the morbidity method is 1,853 months. There are 55 items of chemotherapy drugs that are recommended to buy with the consumption method and 67 items, The average Month of Stock shows that the morbidity method has a lower average Month of Stock value thanthe consumption method.

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INTRODUCTION

Pharmaceutical Service Standards in Hospitals Permenkes No. 72 of 2016 says that drug management is a cycle of activities starting from selection, needs planning,

procurement, receipt, storage, distribution, destruction and withdrawal, control and administration (Martei et al., 2018).

In the World Medicine Situation, cancer ranks fifth chronic disease with a potential death rate of 12 per 10,000 people. The International Agency for Research on Cancer (IARC) estimates the incidence of 19.2 million new cancer cases and 9.9 million cancer deaths in 2018 (Organization, 2018). The availability of chemotherapy drugs is very important considering that cancer drugs are one of the important elements that cannot be replaced in cancer treatment services (Minister of Health, 2006).

value Month of Stock is obtained from the average inventory value divided by the cost of goods sold, this is to find out or calculate how long the goods that have become stock have been in the store / warehouse (Quick et al., 2012). The smaller the Month of Stock, the more efficient it will be, because it means that the item does not last long in the warehouse (Reddy, 2008).

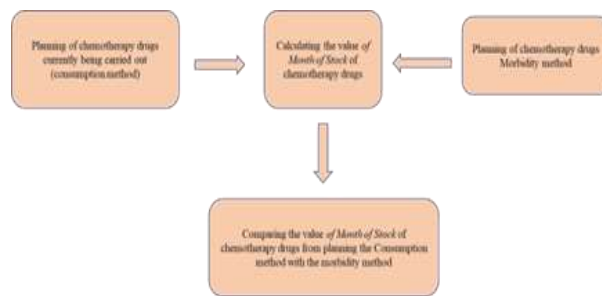
MRCCC Siloam Semanggi Hospital is a hospital with superior cancer treatment (Satrianegara et al., 2018). From the data on drugs, the injection chemotherapy drug class is the drug with the largest total spending value compared to other drugs, which is 53.8%, while from the Month of Stock with the current planning, namely the consumption method, the average value of the Month of Stock has not reached SHG target is 0.66 months. Therefore, researchers are interested in knowing EBOOK: Business Research Methods(Blumberg et al., 2014). 1). How is the Month of Stock for chemotherapy drugs with the consumption method. 2). How is the Month of Stock the Morbidity method. 3). How to classify each type of drug based on the most efficient method based on the Month of Stock value By knowing the difference in values Month of Stock from the consumption method and the morbidity method, it can help management determine the right planning, so as to increase efficiency and reduce the value of chemotherapy drug supplies (Quick et al, 2012). This can have an impact on the health services provided to the community for the better so as to satisfy patients. To realize the efficiency of the chemotherapy drug supply value, a study was conducted on the difference in the monthly value of chemotherapy drug planning with the consumption method and the morbidity method (Puspikaryani et al., n.d.).

METHODS

This research was conducted at the MRCCC Hospital Siloam Semanggi, with the time of research or data collection from October 2021 to January 2022

This research is an experimental / post facto research and based on its nature, this research includes a comparative descriptive study with the aim of explaining the needs planning method the most efficient chemotherapy drug by comparing the value Month of Stock chemotherapy drug consumption method with the morbidity method. The research data used prescribing data consisting of the number of drug use from 2019 to 2021. The data were obtained from the pharmacy department, medical records

The data obtained were then checked for completeness and then processed using Microsoft Excel and SPSS 22.



RESULTS AND CONCLUSIONS

From the research conducted on the planning of morbidity, it was found that there was an increase of 6.5% every month in patients undergoing chemotherapy with a total protocol of 15,450.

From the research data obtained data 55% are female patients (8,497 patients) while 45% are male patients (6,953 patients). In female patients, breast cancer is in the first position, which is 17% or about 1,444 patients, and 8% of cervical patients or about 679 patients. Whereas in male patients, the first position is lung cancer as much as 15% or 1043 patients and the second place is 10% or 695 patients (Society, 2012).

Univariate Analysis

From a total of 122 items of injection chemotherapy drugs, it is recommended that 67 items be planned with morbidity and 55 items use planning using the consumption method Bivariate analysis (Notoatmodjo, 2012). From the results of the Kolmogorov-Smirnov normality test (relatively large data 30), the value of Month of Stock in the method morbidity and consumption had a significance less than 0.05 ($p < 0.05$), so it can be concluded that the data were not normally distributed (Quick et al., 2012).

Because the data are not normally distributed, the different test on the value of the Month of Stock on the morbidity and consumption method is carried out using a nonparametric statistical test, namely the Mann Whitney Test (Kemenkes, 2016).

Based on the analysis of the Mann Whitney test in the 'Test Statistics' table, it can be seen that the 'Z' value obtained is -3.001 and Asymp. Sig (2-tailed) is 0.003 ($p < 0.05$) (Agustin et al., 2022) (Njau & Karugu, 2014). This means that H_0 is rejected so it can be concluded that there is a significant difference between the value of Month of Stock on the morbidity and consumption method, it is known that the average value of Month of Stock on the morbidity method is 1,853 months and the average value of Month of Stock on the consumption method is 2,125 months. Based on the average monthly value of stock, it can be seen that the morbidity method has a lower average monthly than the consumption method (Anggoro & Netra, 2022).

Planning chemotherapy drugs with the morbidity method will increase efficiency, which from the graph shows in a matter of 1,853 months or 55.59 days the stock of drugs will be out or sold (Puspitawati et al., 2021). Meanwhile, when using the consumption method, data obtained that chemotherapy drugs will be sold or released in a matter of 2,125 or 63.75 days (Quick et al., 2012) (Manorek, 2016).

If viewed from the nominal side, it is found that when planning with the morbidity method the average final stock is Rp. 7,408,993,252 while when using the consumption method then the final average stock is Rp. 10,975,453,481. So there is a nominal difference of Rp. 3.566.460.229

This planning process would be better if the two methods combined, from the month stock value obtained a value of 1.41 months, or 42 days, and when viewed from the nominal value obtained efficiency savings of Rp. 1,848,870,531.

CONCLUSION

The Month of Stock using the consumption method is 2,125 months. The Month of Stock using the morbidity method is 1,853 months. There are 55 items of chemotherapy drugs that are recommended to buy with the consumption method and 67 items of chemotherapy drugs that are recommended to buy with the morbidity method. Based on data from January 2019 to December 2021, the average Month of Stock shows that the morbidity method has a lower average Month of Stock value than the consumption method.

BIBLIOGRAFI

- Agustin, M. J., Usman, U., & Umar, F. (2022). Aspek Sosial Budaya Terhadap Risiko Diabetes Mellitus Pada Banyak Ketua Adat Tolotang (Uwa) Di Kabupaten Sidrap. *Indonesian Health Journal, 1*(2), 67–73.
- Anggoro, B. T., & Netra, I. (2022). The Effect Of Numbers Puzzle Games On The Cognitive Development Of Preschool Children Aged 5-6 Years At Ra Nurul Hidayah Malang. *Indonesian Health Journal, 1*(2), 34–43.
- Blumberg, B., Cooper, D., & Schindler, P. (2014). *Ebook: Business Research Methods*. Mcgraw Hill.
- Kemendes, R. I. (2016). Peraturan Menteri Kesehatan Republik Indonesia Nomor 72 Tahun 2016 Tentang Standar Pelayanan Kefarmasian Di Rumah Sakit. *Kementerian Kesehatan Republik Indonesia: Jakarta*.
- Manorek, S. L. (2016). The Influence Of Brand Image, Advertising, Perceived Price Toward Consumer Purchase Intention (Case Study: Samsung Smartphone). *Jurnal Berkala Ilmiah Efisiensi, 16*(1).
- Martei, Y. M., Chiyapo, S., Grover, S., Hanna, C., Dryden-Peterson, S., Pusoentsi, M., Shulman, L. N., & Tapela, N. (2018). Methodology To Forecast Volume And Cost Of Cancer Drugs In Low-And Middle-Income Countries. *Journal Of Global Oncology, 4*, 1–8.
- Njau, J. N., & Karugu, W. (2014). Influence Of E-Marketing On The Performance Of Small And Medium Enterprises In Kenya: Survey Of Small And Medium Enterprises In The Manufacturing Industry In Kenya. *International Journal Of Business & Law Research, 2*(1), 62–70.
- Notoatmodjo, S. (2012). *Metodologi Penelitian Kesehatan*, Jakarta, Pt Rineka Cipta. *Profil Sma, 2*.
- Organization, W. H. (2018). Latest Global Cancer Data: Cancer Burden Rises To 18.1 Million New Cases And 9.6 Million Cancer Deaths In 2018. *International Agency For Research On Cancer. Geneva: World Health Organization, 1–4*.
- Puspikaryani, G. A. P., Kristanti, I. G. A. M. I., & Wibawa, I. M. A. Y. (N.D.). Strategi

- Perencanaan Dan Pengadaan Obat Dalam Penanganan Pandemi Covid-19 Di Instalasi Farmasi Rsud Bali Mandara. *Majalah Farmaseutik*, 18(1), 85–89.
- Puspitawati, N., Pristianty, L., Rahem, A., & Hartono, W. (2021). Efektivitas Perencanaan Kebutuhan Obat Dengan Metode Morbiditas Terhadap Ketersediaan Obat Kemoterapi. *Jurnal Ilmiah Ibnu Sina*, 6(1), 133–142.
- Quick, J. D., Embrey, M., Dukes, G., & Musungu, S. (2012). Managing Access To Medicines And Other Health Technologies. *Usa: Management Science For Health*.
- Reddy, V. V. (2008). *Hospital Material Management In Av Srinivasan (Ed)(Managing A Modern Hospital Ed.)*. New Delhi: Sage Publications.
- Satrianegara, M. F., Bujawati, E., & Guswani, G. (2018). Analisis Pengelolaan Manajemen Logistik Obat Di Instalasi Farmasi Rsud Lanto Daeng Pasewang Kabupaten Jeneponto. *Al-Sihah: The Public Health Science Journal*.
- Society, A. C. (2012). Cancer Facts & Figures 2017. *J. Consum. Health Internet*, 16, 366–367.

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