GENERIC MEDICINE PRESCRIPTION: PERCEPTION, OBEDIENCE, AND SUPERVISION AT THE KALISAT DISTRICT HOSPITAL

Peresepan Obat Generik: Persepsi, Kepatuhan, dan Pengawasan di RSD Kalisat

Isna Rahmawati1, *Alief Dyaningayu Savitri2
1, 2Faculty of Public Health, Airlangga University, Indonesia
*Correspondence: alief-dyaningayu-savitri-2015@fkm.unair.ac.id

ABSTRACT

Background: The average of generic medicine prescription at the Kalisat District Hospital, Jember from 2009 to 2011 was 57.50% while patent medicine prescription was 42.50%. It showed that the use of generic medicine at the Kalisat District Hospital was higher than the use of patent medicine. However, the prescription standard has not been obeyed, and the use of generic medicine prescription is still below the minimum service standard supposed to be 90%.

Aims: This study determined doctor’s obedience and perception of supervision on generic medicine prescription as well as the relationship between supervision and doctor’s obedience in prescribing generic medicine.

Methods: This study was descriptive and observational using a cross-sectional design. The study was conducted from April to July 2013 at the Kalisat District Hospital, Jember. The samples were 50 prescription documents taken randomly in April 2013. Questionnaires were given to 12 doctors in July 2013.

Results: Supervision on generic medicine prescription at the Kalisat District Hospital was considered insufficient by the doctors with the percentage of 58.3%. The level of doctor’s obedience in prescribing generic medicine at the Kalisat District Hospital was 68% while the national standard in April 2013 was 90%. It means that they have not reached the standard of generic medicine prescription.

Conclusion: Generic medicine supervision correlates with obedience in prescribing generic medicine. The correlation between those two factors is considered moderate. The hospital should increase the supervision on generic medicine prescription so that doctors prescribe generic medicine optimally. The hospital management should also do continuous socialization on the use of generic medicine.

Keywords: Generic Medicine, Supervision, Obedience, Perception

LATAR BELAKANG: Rata-rata resep obat yang menggunakan obat generik di RSD Kalisat Jember 2009-2011 sebesar 57.50% sedangkan resep obat yang menggunakan obat paten sebesar 42.50%. Artinya, pemakaian obat generik di RSD Kalisat Jember sudah lebih tinggi daripada obat paten namun peresepannya masih di bawah standar dan belum mematuhi standar pelayanan minimal yang seharusnya, yakni 90%.

TUJUAN: Penelitian ini menentukan kepatuhan dokter dan persepsinya terhadap pengawasan peresepan obat generik, serta hubungan antara pengawasan dan kepatuhan dokter dalam peresepan obat generik.


HASIL: Pengawasan penggunaan obat di RSD Kalisat Jember dinilai kurang oleh dokter dengan persentase 58.3%. Tingkat kepatuhan dokter dalam menulis resep menggunakan obat generik dengan standar penulisan resep 90% pada April 2013 di RSD Kalisat Jember 68%, artinya belum mencapai standar penulisan resep.

KESIMPULAN: Berdasarkan uji tabulasi silang yang digunakan untuk menilai hubungan antara pengawasan penggunaan obat dengan kepatuhan penulisan resep obat generik di RSD Kalisat Jember bulan Juli 2013 menunjukkan bahwa ada hubungan antara pengawasan penggunaan obat dengan kepatuhan penulisan resep obat generik dan kekuatan hubungannya adalah sedang. Upaya yang dapat dilakukan oleh rumah sakit adalah meningkatkan pengawasan penggunaan obat generik sehingga penggunaannya dapat optimal dan harus ada sosialisasi yang terus-menerus dari manajemen rumah sakit tentang penggunaan obat generik.

Keywords: Obat generik, Pengawasan, Kepatuhan, Persepsi

ABSTRAK

INTRODUCTION

The existence of hospitals become important in the world of health. Law of Republic of Indonesia Number 44 of 2009 about the hospital stated that hospital is a service-based health institution for the community with its own characteristic, that is influenced by the development of health science,
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Technological advancement, and the socio-economic life of the people. Hospitals need to be improved continuously to provide a better service quality yet affordable by the community, in order to achieve the highest possible health standard. Hospital is also a health service institution that carries out a complete individual health service which provides inpatient, outpatient, and emergency services. While plenary health service is a health service which includes promotive, preventive, curative and rehabilitative efforts.

According to plenary health services, medicine becomes one of the most needed element, especially in curative efforts. If someone is on the stage of clinical disease, the first intervention given by the doctor is through medicine prescription. There are two kinds of medicine known in the pharmaceutical world, they are generic medicines and patent medicines. Patent medicines are medicines that have a patent right, while generic medicines are medicines that its patent right has expired. The official name of those medicines is listed in International Non-Proprietary Names (INN), which are specified in the Indonesian Pharmacopoeia or other standard books for efficacious substances. (Yusuf, 2016)

According to the European Medicines Agency (EMA) in Yu (2017), generic medicines are the medicine that is developed to be identical with authorized medicines or medicines that have become references. Generic medicines contain the same active substance quantitatively and qualitatively as the referenced medicines and are used at the same time and dose to treat diseases as referenced medicines. Bioequivalence demonstrations between generic medicines and reference medicines have been used worldwide as the basic criteria for approval on generic medicines. Generic medicines can only be distributed after the patent period of the referenced medicines has expired.

Syafris, Syofyan and Noviza (2016) stated that the cost of medicines is the biggest cost of the total cost of treatment, which is around 60-70%. In order to provide alternative medicines for the community with guaranteed quality at affordable prices as well as adequate drug availability, since 1989 the government issued an inexpensive drug program called Labelled Generic Medicines or Obat Generik Berlago (OGB). Looking at its development, the use of Labelled Generic Medicines in Indonesia in 2001 was only around 12%, and in 2007 it decreased to 7.8% even though the national medicines market rose.

To intensify the use of generic medicines and to ensure access to medicines for the entire community, one of the government’s effort is to keep hospitals capable in providing quality services that are accessible to all levels of society. It is re-enforced in the Regulation of Indonesian Ministry of Health Number HK.02.02/MENKES/068/I/2010 concerning the obligation to use generic medicines in all government healthcare facilities. At the district or municipality level, the Decree of Indonesian Ministry of Health Number 1457/MENKES/SK/2003 issued the rule to use generic medicine, explaining the minimum service standard in district healthcare services. Article 2 Paragraph 2 Point X stated that the standard prescription for generic medicines is 90% of all prescription given. The obligation to use generic medicines is based on the recommendation of generic medicines for use throughout the country and has become an international agreement to prescribe generic medicines for health services, including Indonesia. However, the reality of government healthcare services using generic medicines is not optimal yet. The patent medicine prescription produced by the pharmaceutical industry is more dominant.

In accordance with the regulation, the Kalisat District Hospital is obliged to provide basic healthcare services and affordable pharmaceutical services for all society. It means the generic medicine used in the hospital should meet the government standard of 90%. However, according to the prescription data received from the Pharmacy Unit of Kalisat District Hospital in 2009-2011, it is found that the average generic medicine prescription was only 57.50% while patent medicines prescription was 42.50%. From the data, it can be interpreted that the generic medicine prescription at the Kalisat District Hospital was higher than patent medicine, but it is still below the minimum standard of 90%.

There are various factors that can affect individual obedience, such as individual characteristic, the existence of power (authority), and social situation. The factors that affect obedience according to Mahfudhoh and Rohmah (2015) are including the perception of location status, personal responsibility, peer support, legitimacy of authority figures, the status of authority figures, and adjacency of authority figures.

Disobedience in using generic medicines can cause various impacts. The impact could be a discrepancy between drug stock and use. If the doctor prescribes patent medicine, then there will be an excessive amount of generic medicine left. If the stock of patent medicines is deficient, the drugs purchasing cost will increase. If those who receive patent medicine prescription are middle to lower economic class and/or not an insurance participant, it might become a hindrance for them to the accessible medicines. Based on the national data, the use of generic medicine in Indonesia is still relatively low, even though the price is much cheaper and has the same benefits as branded medicine (Yusuf, 2016).

Hospital Pharmacy Unit (HPU) is a hospital unit that provides, manages, and distributes information and evaluation about medicines as stated in the Regulation of Indonesian Ministry of Health Number HK.02.02/MENKES/068/I/2010. It mentions that there is a Committee for Pharmacy and Therapeutic (CPT) who assist pharmacy unit in developing a review on regional and national policies and regulations. Regaleta (2009) states that there are four obligations for the Committee for Pharmacy and Therapeutic (CPT). First is to provide a recommendation to hospital higher-ups in order to achieve culturally rational medicine management and use. Second is to coordinate the process of diagnosis and therapy guidelines, hospital formularies, guidelines for antibiotics, etc. The third is to provide
education on management and medicine use to related parties. The fourth is to provide studies on the management and medicine use, also to provide feedback on the result of the assessment. As stated above, the fourth obligation of Pharmacy and Therapy Department is to assess medicine use and provide feedback. To be able to do so, the Pharmacy and Therapy Department need to supervise medicine prescription in the hospital regularly.

The problem found at the Kalisat District Hospital is the utilization of generic medicines has not achieved the standard, which was It was only up to 57.50% out of 90% minimum service standard for generic medicine prescription. This study determined the doctor's obedience and their perception of generic medicine prescription as well as the relationship between supervision and doctor's obedience in prescribing generic medicine.

METHOD

This study is observational using a cross-sectional design. This study is also a descriptive study because it examines other variables related to the problem. The study was conducted at the Kalisat District Hospital, Jember from April to July 2013. The data were collected in April 2013 from prescription forms. While in July 2013, the study was conducted using questionnaire with doctors as respondents. The sample in this study were all functional doctors as well as prescription documents in the Kalisat District Hospital. The hospital had 12 doctors. It consisted of 6 general practitioners, 2 dentists, 4 specialists (neurologist, gynecologist, anesthesiologist, and orthopedic). While the document samples taken were 50 prescription documents taken randomly using computer application from the data on prescription medical records at the Kalisat District Hospital Pharmacy Unit for 2 weeks starting from April 15th to April 27th, 2013.

The independent variable of this study is doctor's perception of supervision on medicines. The doctor's perception was assessed through a questionnaire about monitoring and evaluation on medicine prescription over the past few years by the Committee for Pharmacy and Therapeutic (CPT). While the dependent variable is doctor's obedience in prescribing generic medicines.

RESULT AND DISCUSSION

Doctor's Perception of Supervision on the Medicines Prescription

The doctor's perception of supervision on medicines prescription is the doctor's assessment of the activities of the Committee for Pharmacy and Therapeutic (CPT) which includes supervision on medicine prescription and formulary evaluation on both generic formulary and generic complementary (patent medicine) as well as their side effects. The result of the study on the variable of doctors' perception of supervision on medicine prescription can be seen in Table 1. Based on Table 1, it can be said that 33.3% out of 12 doctors answered good medicines supervision, those who answered adequate were only 8.3%, and those who answered deficient were 58.3%. From the data above, it could be concluded that the supervision on medicines prescription at the Kalisat District Hospital is deficient, based on the doctors' perception with the highest percentage of 58.3%.

Table 1. Doctor's Perception About Medicines Supervision at the Kalisat District Hospital Based on Score Criteria in July 2013.

<table>
<thead>
<tr>
<th>Supervision of Medicine Prescription</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>4</td>
<td>33.3</td>
</tr>
<tr>
<td>Adequate</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>Deficient</td>
<td>7</td>
<td>58.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
</table>

To complete the data, the researcher also assessed the doctors' perception on formulary supervision and evaluation at the Kalisat District Hospital on July 2013 based on the doctors' specification, which is general practitioner, dentist, and specialist. The result shows that the dentists assessed that the supervision and evaluation of the formulary at the Kalisat District Hospital were good. While the general practitioners and specialist doctors assessed that the supervision and evaluation of formulary were deficient.

The study result regarding the doctor's perception of supervision on medicines prescription indicated that the doctors felt unattended when prescribing a medicine. The Kalisat District Hospital evaluated the formulary, but there were no supervisions on medicine prescription. Based on the information from the Pharmacy Unit, supervision on medicines prescription and formulary evaluation at the Kalisat District Hospital was carried out by the pharmacy itself, and only recorded the use of medicines that were often used to increase its amount at each formulary evaluation. Based on this matter, after the registration process of the frequently used medicines, the pharmacy should report to the Committee for Pharmacy and Therapeutic (CPT) to cross-check the use of generic medicine, to check whether the use of generic medicines was in accordance with the standard or not. Besides, the Kalisat District Hospital should make a system on reward and punishment in terms of prescribing. The doctors who often prescribe generic medicine will be rewarded and for those who often prescribe patent medicines were given a penalty, this is necessary to motivate the doctors to increase the prescription on generic medicines at the Kalisat District Hospital. With this system, doctors will think carefully before they use prescription with patent medicines, so they are expected to prescribe generic medicines.

Indonesian Dictionary or Kamus Besar Bahasa Indonesia defines supervision as an activity...
of seeing and paying attention to people’s behavior by observing, maintaining, and controlling. The term supervision is not very different from monitoring. WHO (2011) defines monitoring as an activity of tracking and reporting regularly about information regarding the development of a program, the output, and the desired result. Supervision also meant to collect data from all relevant sources to analyze what is happening where, and by whom. Monitoring uses a set of core indicators and targets to provide timely and accurate information for partners to inform about performance progress. Evaluation is built based on monitoring but the analysis goes deeper, considering the factors that affect the situation. Monitoring and evaluation are important to be conducted to a policy or program that is being implemented, so if an unexpected event happened, it can be dealt early.

Aprilia and Ayuningtyas (2013) stated that supervision is a method used to evaluate doctor’s prescription. Supervision and evaluation of medicine prescription are needed to be conducted in order to reduce the incidence of medication errors. Lack of attention is one of the factors that can cause medication errors (Luz et al., 2016). The lack of attention can also be interpreted as a lack of supervision on medicine prescription. Lack of supervision will also affect someone’s responsibilities especially doctors, in prescribing medicines. In a study conducted by Luz et al., (2016) stated that another cause of medication errors is the high workload caused by a small number of workers.

A medication error is a serious problem in the world and one of the most common medicinal error that threatens patient safety and even causes death (Gorgich et al., 2015). Another study was also conducted by Gorgich et al., (2015) on Khatam-al-Anbia Hospital’s nursing staff and Iran’s Zahedan midwifery nursing internship student. The result showed that the most common cause of medication error in nursing was fatigue because of high workloads (97.8%). For nursing students, the error was regarding medicines calculation (77.4%). According to the nurse’s point of view, others factors that affect medication errors were the heavy workloads, large number of patient who were in critical conditions, doctor’s order that were unreadable, unequal ratios between nurses and patients as well as environmental conditions that may cause interference has the highest impact on medication errors in nursing. From the study, it was found that doctor’s unreadable command could also come from prescription writing that was difficult for nurses to understand. In connection with the cause of medication error and the importance of preventing medication error which is the measurement on the quality of healthcare, reducing workload must be done by increasing personnel. The number of workers should be proportional to the number and condition of patients, managers must resolve problems related to human resources. An effective system innovation such as electronic medicine cards to supervise doctors’ written prescription is a must, as it will help the nurses and pharmacy to understand the medicine written by the doctor. Also, it can reduce medication error due to unreadable doctor’s handwriting. The supervision is not only referred to often used medicines but including supervision on doctor’s obedience in using generic medicines according to the established standard.

**Doctor’s Obedience**

Measurement on doctor’s obedience level was done through analysis of the prescription documents. A total of 50 prescription documents were taken randomly using the computer application from the data of prescription medical records of the Kalisat District Hospital Pharmacy Unit in April 2013 for 2 weeks. Prescription documents were taken from April 15th to April 27th, 2013.

Table 2. Doctor’s Obedience Level in Prescribing Generic Medicine out of 90% Prescription Standards in April 2013 at the Kalisat District Hospital.

<table>
<thead>
<tr>
<th>Obedience Level</th>
<th>Number of Recipe (n)</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obey</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td>Disobey</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

The results of the secondary data shown in Table 2 showed that 34 or 68% prescription documents have obeyed the law in using generic medicines, while 16 or 32% prescription documents do not use generic medicines. Based on the data, the conclusion that can be drawn was that the level of doctor’s obedience in prescribing generic medicines at the Kalisat District Hospital on April 2013 was 68%, far below the standard of 90%.

Hassali et al. (2014) stated that the quality of generic medicines, use and successful implementation on generic substitution and generic prescription requires communication and cooperation of all parties involved in the process. According to his statement as a recommendation that can be given to increase the use of generic medicine, there should be cooperation between healthcare professionals like pharmacists, doctors, and other prescribers and providers. The doctor as someone who is directly related to the patient should be able to cooperate. The cooperation that can be done is by obediently prescribing generic medicine.

Indonesian Dictionary defines obedient is a behavior that shows adherence to orders, rules, and so on. Meanwhile, according to Mcleod (2007) obedient is one type of social behavior where a person tends to obey and keep the command given by authority figures. From this definition, it can be interpreted that people will do certain behavior in the presence of supervision and element of command given by the authority. The low number of prescription that uses generic medicines can be caused by the lack of obedience regarding the regulation about obligation to use generic medicines. Mahfudhoh and Rohmah (2015) stated that if someone believes that the institution that organizes...
the program is an institution that has the status of validity, prestige, and honor, then those institutions will be obeyed by the members of the organization. Related to this, the Committee for Pharmacy and Therapeutic (CPT) has the role of the program organizing committee. If the Committee for Pharmacy and Therapeutic (CPT) properly supervise generic medicine prescription, the members of the organization will obey the regulation. Especially, when they are prescribing generic medicine. Leaders also have an important role. A study of Aprilia and Ayuningtyas (2013) explains that leaders who were less assertive and lacked of socialization regarding the use of medicine in accordance with the formulary, influenced the doctors in prescribing a medicine.

Another supporting study is from Mahfudhoh and Rohmah’s (2015). The research focused on the factors that influence prescribing obedience according to the formulary. In their research, the obtained results were factors that have significant relationship to prescribing obedience according to formulary at the Outpatient Unitof Jemursari Islamic Hospital Surabaya were personal responsibility, peer support and adjacency with authority figures. The results of the study were in accordance with the Milgram experiment in association with the personal relationship with the authority figure (Mcleod, 2007). When the doctors are personally close to the authority figure, they are more likely to obey the medicine prescription policy. It greatly determines the obedience of formulary based prescription. If between the doctor and the authority figure are not personally close, which in this study is the Committee for Pharmacy and Therapeutic (CPT) of the Hospital as the party who should supervise generic medicine prescription, it will be difficult to support the doctor’s obedience behavior.

In the study conducted by Flood et al. (2017) about Perception and Utilization of Generic Medicines in Guatemala, the research target was doctor and pharmacist, there were 12 doctors and 30 pharmacy staff from three locations in Central Guatemala. The results showed that 41% of the pharmacy staff believed that generic medicine was not as safe as medicines with commercial brand names, while 33% believed that generic medicine was not effective. While for doctors, 55% believed that generic medicines were not as safe as medicines with commercial brand names, and 55% also said they were not effective. Nine respondents also said that they object to using generic medicines, they argued that generic medicine do not have good quality and do not offer the same results on patients.

The doctors who became the respondents admitted that the quality of generic medicine depends on the capability of the company that made the generic medicine, and the low price of generic medicine itselfs showed inadequate quality. From the research conducted by Flood et al. (2017) can be concluded that doctors' perception on generic medicine influenced their willingness to use generic medicine for patients so that it also influenced adherence in medicines prescription using generic medicine. Whereas basically, generic medicine is one of the pharmaceutical preparations that have fulfilled the pharmacopeia requirements and passed the manufacturing process according to the article about How to Make a Good Medicine or Cara Pembuatan Obat yang Baik (Yusuf, 2016).

Doctors’ perception of generic medicine that will support their obedience in using generic medicine are also influenced by information factors. The results of the Tsapranitz et al. (2016) study showed that information played a significant role in generic medicines. Information provision alters misconceptions about the safety and efficacy of generics and increases doctors’ and patients’ confidence in adhering to generic substitution policies. So, more information given about generic medicine is expected to change doctors’ attitude toward the use generic medicine.

The Relationship between Doctor’s Perception of Supervision on Medicine Prescription and Obedience

The doctor's perception of supervision on medicine prescription is the doctor's assessment on the activities of the Committee for Pharmacy and Therapeutic (CPT) which includes supervision on medicine prescription and formulary evaluation both on generic formulary and generic companion formulary for a year. Table 3 showed that doctors at the Kalisat District Hospital who adhered to the policy of prescribing generic medicines. 100% of them believe that there is supervision on medicine prescription by the Committee for Pharmacy and Therapeutic (CPT). Based on the test conducted, it shows that the value of X2 was 1.172 with a significance of 0.041 and r 0.500, which means that there is a relationship between the supervision on medicine prescription with the obedience on generic prescription medicines. The strength of the relations is considered moderate.

<table>
<thead>
<tr>
<th>Medicine Prescription Supervision</th>
<th>PrescriptionObedience</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>Deficient</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
</table>

It was noticed that there is a relation between medicines supervision and prescription obedience. The obedient doctors tend to have a good perception of supervision, and doctors who disobey tend to underestimate the supervision. This is in accordance with the study by Mahfudhoh and Rohmah (2015) that obedience is one type of social behavior where someone obeys the requests of others to do something because of authority. The person who has legal authority here is the Committee for Pharmacy and Therapeutic (CPT) and Director. Doctors who perceived that the way they prescribed will be monitored and evaluated by the Committee for Pharmacy and Therapeutic (CPT) tend to obey the medicine prescription.
CONCLUSION

Based on the results, it can be concluded that the doctor’s perception towards supervision on generic medicine prescription was deficient, considered from the doctors’ perception percentage with the highest percentage was only 58.3%. The standard level of doctor’s obedience in prescribing generic medicine is 90% from the total prescription given, while on April 2013 at the Kalisat District Hospital was only 68%, which means that they have not reached the standard for generic medicine prescription. Based on the tests conducted, it shows that there is a relationship between supervision on medicine prescription and doctor's obedience on generics prescriptions. Obedient doctors tend to have a good perception of supervision, and those who do not adhere prescribes less generic medicine. Supervision of medicine prescription and obedience of generic medicine prescription has a moderate relationship.

The Kalisat District Hospital should increase supervision on medicine prescription to optimize the use of generic medicine. Continuous socialization must also be done by the management of the Kalisat District Hospital together with the Pharmacy Unit regarding the importance of prescribing generic medicine. System of reward and punishment in terms of prescribing can also be implemented. As for doctors who often write generic prescriptions will be rewarded and those who often prescribe patent medicine are given penalty. It aims to motivate doctors to increase generic medicine prescription at the Kalisat District Hospital. This system of reward and punishment will make doctors think carefully before they prescribe patent medicine, so it is expected that they will prescribe more generic medicine.

REFERENCES


Hassali, M. A. et al. (2014) ‘The Experiences of Implementing Generic Medicine Policy in Eight Countries: A Review and


