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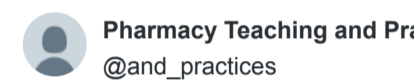
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Are Patients Willing to Ask for Generic Drug Substitutions?

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Surabaya – Indonesia

Research Article

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Abstract

Objective: Generic drug substitution has been known as a strategy to promote generic drug use. Under the pharmacy practice act, pharmacists in Indonesia are allowed to do generic substitution with the approval of a physician and/or the patients. This study was conducted to discover patients' willingness to ask for generic drug substitutions.

Methods: A study was carried out by surveying 300 respondents in Surabaya, Indonesia. A structured questionnaire was used to find out patients' opinions and willingness regarding generic drug substitutions. The results were then analyzed by displaying the frequency of the respondents' answers and their willingness to ask for generic drug substitutions.

Results: The majority of the respondents recognized several characteristics of generic drugs properly but the emphasis was on the cheap price of the drug. Although they agreed that generic drug is a safe, effective and affordable drug, patients were not confident to ask for generic substitutions. They heavily relied on the advice of healthcare professionals for the substitutions.

Conclusion: Although most of the respondents were willing to ask for generic substitutions, at the end they preferred to listen to professional advice from healthcare providers. Their willingness was mainly influenced by the preference of physicians and pharmacists; therefore, it is an opportunity for pharmacists to endorse patients to use generic drugs.

Keywords: *Patients, Willingness to ask, Generic Drug Substitutions*

Introduction

Generic drugs have been considered as one of the effective tools to control the rising healthcare expenditure¹⁻³. Several strategies have been conducted in many countries to promote the use of generic drugs from modifying the national drug legislation to encouraging patients to use generic drugs⁴⁻⁶. One of the widely-used efforts is the generic drug substitution⁷⁻⁹. Generic drug substitution has proven to decrease the healthcare expenditure up to 11 percent¹⁰; indeed, it has been stated as a legal action for pharmacists to automatically switch the brand name product to its generic name^{3,7,8}. Debates have arisen regarding this generic drug substitution. The pros claimed that generic drug substitutions might help patients to get affordable medicine without affecting the quality of the drugs or the therapeutic effects of the prescribed drugs¹¹, while the cons argued that generic drug substitutions are not always clinically equivalent¹² and it is a source of patient's non-compliance due to confusion on using the substituted drug⁹. Regardless the controversy, developing countries like Indonesia have enjoyed the benefits of using generic drugs as part of the agenda to provide essential drugs for their people^{3,7,13}. Since it was firstly introduced in 1989 in Indonesia, generic drugs have been widely used throughout the country and it is one of the best options for low income people to fulfill their medication needs. Generic drug substitution is also endorsed by the government through a regulation called the Pharmacy Practice Act¹⁴. In article 24 of the Act, it states that a pharmacist is allowed to substitute a brand name product with its generic version or with another brand name product under the approval of a physician and/or the patient. The article has given patients an opportunity to take role on determining the appropriate medicine for themselves, particularly if they are financially limited. Therefore, it is interesting to find out the willingness and opinions of patients to ask for generic drug substitutions.



Material and Method

A descriptive, cross-sectional study was carried out in Surabaya, the second largest city in Indonesia with a population of 3.3 million people, to draw patients' opinions regarding generic drugs and generic drug substitutions. The survey was conducted from January to July 2011 with a total of 300 patients as the respondents who were purposively sampled using the infinite sample size equation with the confidence level of 95% and the probability rate of 70%. The respondents were collected from the public and private healthcare facilities such as hospitals, primary care facilities, pharmacies and clinics. Each respondent had to meet several criteria before filling the questionnaire such as having to be over 17 years old, being able to fluently communicate with the surveyors, and willing to be surveyed. An ethical approval from the University Ethical Committee was gained before conducting the survey and combined with informed consents for the patients as an agreement for participating in the survey.

A Questionnaire was used to collect data from the respondents. It composed of three parts which were asking the characteristic of the respondent, respondents' opinion about generic drugs, and their responses to generic substitution. Data were then analyzed using SPSS Ver. 16 for describing the frequency of each parts in the questionnaire.

Results

A total of 300 respondents was collected for the survey. 57% of the respondents were female and 43% were male. The majority of the respondents (40.3%) was 18-25 years old. The average of the respondent's age was 31.79 years with the standard deviation of ± 11.247 . 63.9% of the respondents have finished the secondary grade education (7 year primary education plus 3 year secondary level). Most of the respondents were working as employees in the private sector with 52.7% and the majority of the respondents (31.3%) stated they had no income. The last characteristic showed that 63.7% of the respondents were not covered by any insurance plan. (see table 1)

Table 1. Respondents' Characteristics (N= 300)

Characteristic	Frequency (%)
Gender	
Male	129 (43)
Female	171 (57)
Age	
18-25	121 (40,3)
26-35	78 (26)
36-45	57 (19)
46-55	36 (12)
56-65	6 (2.7)
> 65	2 (0,7)
Mean of age	31.79 \pm 11.247
Educational level	
Primary grade	21 (7)
Secondary grade	192 (63.9)

Characteristic	Frequency (%)
Tertiary grade	83 (27.7)
No education background	4 (1.3)
Occupation status	
Private worker	158 (52.7)
Public worker	24 (8)
Student	74 (24.7)
Unemployed	44 (14.7)
Income level (Indonesian Rupiah/IDR)	
< 1,000,000 (< 103 USD)	45 (15)
1,000,001-2,000,000 (103-206 USD)	72 (24)
2,000,001-3,000,000 (207-309 USD)	63 (21)
> 3,000,000 (> 309 USD)	26 (8.7)
No income	94 (31.3)
Insurance Coverage	
Yes	109 (36.3)
No	191 (63.7)

The first question in Table 2 showed that more than 75% of the respondents have correctly figured out the common attributes of generic drugs. In addition, 52.3% of the respondent said the affordable price of generic drugs was the dominant characteristic of a generic drug. 52.7% of the respondents stated that they had never gained specific information about generic drugs from their physicians and pharmacists. 95% of the respondents were interested to get a safe and effective drug with a cheaper price. Slight decrease occurred when respondents were asked to use generic drugs with 92.3% saying yes and it got lower to become 91.3% when they were asked if they were willing to substitute a prescribed drug with the generic version. Pharmacists' recommendations have proven to influence the patients' preference to use generic drugs with 87.7% of respondents were willing to use generic drugs after being recommended by their pharmacists. More than 69% of the respondents believed that physicians have the right to do generic drug substitutions. 70.3% of the respondents were willing to do generic drug substitutions. Advice from healthcare professionals affected the patients' reasons to select a drug with 53.3%. (see table 2)

Table 3 showed that in majority the respondents were agreed that generic drugs were as effective, safe and contains similar active ingredients as brand name products with 66%, 63% and 61.3% respectively. 90% of them also agreed that generic drugs were cheaper than their brand name counterparts. Knowing such high agreements, only 61.7% of the respondents agreed that prescribed brand name drugs could be substituted by the generic versions although the majority (80.3%) agreed that patients should be allowed to ask for



Table 2. Patients' Opinions about Generic Drugs (N= 300)

interchangeable with an innovator's product that is

Variable	Respond	Frequency (%)
1. What do you think of generic drugs?	Correct Answers	240 (80)
	a. Drugs with generic logos	3 (1)
	b. Drugs with similar active ingredients to patented drugs	12 (4)
	c. Drugs named with the names of active ingredients	11 (3.7)
	d. Drugs with affordable prices	
	e. Off patent Drugs	157 (52.3)
	f. Drugs subsidized by the government	10 (3)
	g. Drugs with no advertisements	41 (13.7)
	h. Drugs without a brand	3 (1)
		3 (1)
	False Answers	46 (15.3)
	a. Drugs with good quality	16 (5.3)
	b. Drugs with poor quality	2 (0.7)
	c. Drugs from physicians	2 (0.7)
	d. Drugs with more expensive prices	2 (0.7)
	e. Drugs with slow work	1 (0.3)
	f. Drugs with a brand name	1 (0.3)
	g. Drugs with active ingredients	2 (0.7)
	h. Drugs with small doses	6 (2)
	i. Herbal Drugs	1 (0.3)
	j. Drugs for pain reliefs	4 (1.3)
	k. Drugs made in Indonesia	1 (0.3)
	l. Drugs with no excipients	1 (0.3)
	m. Over the counter drugs	1 (0.3)
	n. Drugs available in the market	2 (0.7)
	o. Drugs only available in the pharmacy	3 (1)
	p. Official drugs of WHO	1 (0.3)
	I do not know Generic Drugs	14 (4.7)
2. Has your physician or pharmacist ever informed you about generic drugs?	Yes, he/she has No, he/she haven't	127 (42.3) 173 (57.7)
3. Do you want to get an effective and safe drug with a cheaper price?	Yes No	285 (95) 15 (5)
4. If the cheap, effective and safe drug above (question no. 3) is a generic drug, are you willing to use it?	Yes No	277 (92.3) 23 (7.7)
5. If a generic drug has the same effectiveness with brand name product, are you willing to substitute the prescribed drug with the generic one?	Yes No	274 (91.3) 26 (8.7)
6. If a generic drug is recommended by the pharmacist, do you prefer to use the generic drug than a brand name product?	Yes No	263 (87.7) 37 (12.3)
7. According to you, who has the right to substitute a brand name product with a generic drug	Physician Pharmacist Patient Others	209 (69.7) 50 (16.7) 30 (10) 11 (3.7)
8. If a patient has the right to ask for a generic substitution, are you willing to do it?	Yes No	211 (70.3) 89 (29.7)
9. The primary reason before selecting a drug	Price Convenience and comfort feeling Healthcare provider's advice Recommendation from relatives Drug promotion	82 (27.3) 37 (12.3) 160 (53.3) 11 (3.7) 10 (3.3)

substitutions. Lastly, 90.3% felt that they had to get information regarding the generic name of a drug. (see table 3)

Discussion

World Health Organization has defined a generic drug as "a pharmaceutical product usually intended to be

manufactured without a license from the innovator's company and marketed after the expiry date of the patent or other exclusive rights. Generic drugs are marketed under a non-proprietary or approved name rather than a proprietary or brand name. Generic drugs are frequently as effective as, but



much cheaper than, brand name drugs¹⁵. The majority of the patients in the research had figured out appropriately the characteristics of generic drugs as stated in the definition by WHO. To be more specific, this research found out that the term generic drug has been generally perceived by the majority of the respondents as an affordable drug. This understanding is based to the fact that generic drug products are usually and in many cases sold cheaper than their brand name counterparts. According to Lebanova, a generic drug gives a patient an opportunity to get a safe, effective and high quality drug at 20-80% of the price of a brand name drug¹⁶. While in Indonesia, generic drugs are sold 5 to 6 times cheaper than the brand name drugs¹⁷.

Table 3. Patient's Responses to Generic Drug Substitutions (N= 300)

Responses		Frequency (%)		
		Agree	Disagree	I Don't Know
1.	Generic drugs are as effective as brand name products	200 (66.7)	52 (17.3)	48 (16)
2.	Generic drug are as safe as brand name products	189 (63)	55 (18.3)	56 (18.7)
3.	The active ingredients of a generic drug is as same as those of a brand name product	184 (61.3)	46 (15.3)	70 (23.3)
4.	Generic drugs are cheaper than brand name products	273 (91)	13 (4.3)	14 (4.7)
5.	Prescribed brand name medicine can be substituted by the generic ones	185 (61.7)	69 (23)	46 (15.3)
6.	Patients are allowed to ask for generic drug substitutions	241 (80.3)	28 (9.3)	31 (10.3)
7.	Patients have to be informed about the generic name of a drug	271 (90.3)	9 (3)	20 (6.7)

There are many reasons why generic drug products are cheaper than brand name drugs, such as they have already been off-patent, the drugs do not use exclusive brand names, so there are less costs on the advertisements to promote the drugs and they depend on the pricing mechanism set by the government¹⁸⁻²⁰. However, understanding generic drugs from the price aspect only could be misleading since patients might plausibly recognize that every cheap drug is a generic drug while in fact some brand name products could be cheaper than generic products. Thus, it requires the role of the stakeholders particularly healthcare providers to inform the comprehensive characteristics of generic drugs to patients. However, this research found out that less than half of the respondents had been informed about generic drugs by their physicians and pharmacists. Kobayashi⁸ stated that information from physicians and pharmacists will improve patients' acceptance to use generic drugs. Therefore, it is critical for physicians and pharmacists to have proper knowledge and understanding on generic drug substitutions and to provide this to the patients. Public awareness on using generic drugs or taking substitutions relies on the stimulation of information and campaign of generic drugs¹⁶. This role could not be given only to the side of the government while in fact the healthcare providers have a big portion on shaping the patients' understandings. Beyond that, it is important that patients know the other aspects of generic drugs such as the availability and accessibility of the drugs rather than seeing them as cheap drugs only because correct understanding of generic drugs could lead to positive attitude them.

The questions 3,4,5 and 6 on table 2 displayed that most of the respondents were not reluctant to have cheap drugs. Indeed, the result of questions 4 and 5 pointed out that a generic drug could be the option to get an effective, safe and affordable drug for patients; moreover, patients were willing to use and to substitute the prescribed brand name drugs with the generic versions. This implied that patients did not hesitate to use and to substitute with generic drugs. In addition, this article showed that recommendation from pharmacists might endorse patients to do substitutions. This is inline with several studies that concluded that pharmacists were highly supportive of generic substitutions and positively inclined towards generic medication^{13,21}. This paper showed that most of the patients

preferred physicians and pharmacists as those who had the right to do generic drug substitutions and only 10% of them argued that patients also had the right to ask for generic drug substitutions. In regard to the Pharmacy Practice Act, many of the respondents were not aware that they also had the right to do generic substitutions and it may also explain the fact that many people did not acknowledge that they had the chance to ask for generic substitutions. The right of the patients on selecting their own medication should be embraced in the setting of pharmacy practices. Patients need to know that they have the opportunity for substitutions and pharmacists have to be smart in assesing patients' need so there will be no patients especially those from low economic levels who are unable to fulfill their medication due to expensive costs of the drug. However, an interesting fact showed that almost one third of the patients were still not keen on substituting with generic drugs eventhough they were in the position to have the right for substitutions. The result of question 9 restated this argument that patients preferred to listen to the advice of physicians and pharmacists before selecting a drug therapy. These last three results indicated that the dependency of patients on healthcare providers is the main key to promote generic substitutions. Due to asymetric information and professional belief, although patients were aware of their rights and duties, they still depended on their healthcare providers to take real actions



regarding their therapy. An educated patient still needs a provider to inform and to assure him or her about the risks and benefits of the therapy. Patients, even though knowing their rights and having the willingness for a substitution, will need the recommendation of physicians and pharmacists regarding generic drug substitutions. This actually can be a good solution in promoting generic drug use provided that doctors and pharmacists give positive advice on generic drugs.

Table 3 has justified this fuzzy puzzle that although the majority of the respondents agreed generic drugs were effective and safe and have the same active ingredients with brand name products and were cheaper than brand name drugs, the disagreement and the don't know response were also significantly high with up to 35%. A juxtaposed result also showed that many respondents agreed patient should be allowed to do generic drug substitutions but fewer stated their agreement that prescribed brand name drugs should be substituted with the generic drugs. Unfortunately, this paper could not further clarify the reason behind this fact but if we could base it on the philosophy of prescription that it was the result of mutual interactions and intimate discussions between doctors and patients which was then translated into detailed instructions to pharmacists, thus it can be understood that many patients were likely not interested to substitute prescribed brand name drugs with generic versions because patients would feel the prescriber knew better about the patients' condition. Patients also agreed that a generic name of a drug should be well informed to the patient. Since 2006, the government of Indonesia has actually regulated the labelling of a brand name drug in which every drug should display the generic name in its package²². Nevertheless, it seems that respondents on this research did not pay attention to such a regulation. Therefore, the role of a healthcare provider is needed as the person who directly interacts with the patient to supply information about generic names.

Summarizing this paper result, the author discovered that generic drug uses are inevitable particularly for the developing countries like Indonesia. The use of generic drugs should be taken as an important agenda of the healthcare system and the provision of essential drugs. Generic drug substitutions might be the option to improve generic drug uses. Patients should be endorsed to know that they have the chance to ask for generic drug substitutions. The vulnerable position of patients should not only be considered as fragility but also has to be considered as a social motive for the healthcare providers to prescribe and dispense the best medication for the patients so they can achieve definite therapeutic outcomes designed. Debates on generic drugs for people in the developing countries must be maintained as an appropriate response for the sake of the patients' wellbeings. Many low income people will actually benefit from the use of generic medicine if the providers offer generic drugs for them. This assumption should drive the healthcare providers to set aside the controversy over the generic drug substitutions and focus on the needs of patients to get a safe, effective and affordable medication as it is clearly stated in the definition of generic

drugs by WHO. The government, in particular the pharmaceutical regulatory agency, has a determining role to facilitate this by assuring the healthcare providers that generic drugs are also safe and effective and cause similar therapeutic responses with their brand name counterparts. A promising effort through publishing an orange book, containing information on approved drug products with therapeutic evaluations, just like what the United States of America's FDA has done may assure pharmacists and physicians that generic drug substitutions are a reasonably and scientifically accepted action; thus, it will help the providers to have an alternative on giving the medication that is not only safe, effective and affordable for patient but also curbs the rising healthcare expenditures.

Conclusion

Patients agreed that generic drugs were safe, effective, and affordable and were also considered to have the same active ingredients as the brand name products. They were also willing to substitute a brand name product with its generic version. However, patients also needed the advice and recommendations from the healthcare providers before carrying out the idea of generic drug substitutions into action. This result showed that the position of healthcare providers particularly pharmacists is critical to endorse the program of generic drug substitutions. Once they have a positive attitude regarding generic drug substitutions, patients will likely do the substitution.

References

1. King, DR, Kanavos P. Encouraging the Use of Generic Medicines: Implications for Transition Economies. *Croatian Medical Journal* 2002;43(4):462-469.
2. Jamshed SQ, Hassali Moh AA, Ibrahim Moh, Shafie AA, Babar Z. Knowledge, Perception and Attitude of Community Pharmacist towards Generic Medicine in Karachi, Pakistan: A Qualitative Insight. *Tropical journal of Pharmaceutical Research* 2010;9(4):409-415.
3. Chong CP, Hassali MA, Bahari MB, Shafie AA. Evaluating Community Pharmacists' Perceptions of Future Generic Substitution Policy Implementation: A National Survey from Malaysia. *Health Policy* 2010;94:68-75.
4. Frisk P, Rydberg T, Carlsten A, Ekedahl A. Patients' Experiences with Generic Substitution: A Swedish Pharmacy Survey. *Journal of Pharmaceutical Health Services* 2011;2:9-15.
5. Hassali MA, Shafie AA, Awaisu A, Ibrahim, Mohamed I, Ping CC. Physicians' views on generic medicines: A narrative review. *Journal of Generics Medicine* 2010;7(1):30-39.



6. Beecroft, Grahame. Generic Drug Policy in Australia: A Community Pharmacy Perspective. *Australia and New Zealand Health Policy* 2007;4(7)
7. Williams, Gossell M. Generic Substitutions: A 2005 Survey of the Acceptance and Perceptions of Physicians in Jamaica. *West Indian Medical Journal* 2007;56(5):458-463.
8. Kobayashi E, Karigome H, Sakurada T, Satoh N, Ueda S. Patients' attitudes towards Generic Drug Substitution in Japan. *Health Policy* 2011;99:60-65.
9. Hakonsen H, Toverud, E. A review of patient perspectives on generics substitution: what are the challenges for optimal drug use. *Generics and Biosimilars Initiative Journal* 2012;1(1):28-32.
10. Shrank W, Cox ER, Fischer MA, Mehta J, Choudry NK. Patient's Perceptions of Generic Medicine. *Health Aff (Millwood)* 2009;28(2):546-556
11. Algasham AA. Generic Drug Prescribing in Central Saudi Arabia: Perceptions and Attitudes of Physicians. *Ann Saudi Med* 2009;29(1):24-29
12. Haskins LS, Tomaszewski KJ, Crawford P. Patient and physician reactions to generic antiepileptic substitution in the treatment of epilepsy. *Epilepsy and Behavior* 2005;7:98-105.
13. Al Gedadi NA, Hassali MA. Pharmacists' views on generic medicines: A review of the literature. *Journal of Generic Medicines* 2008;5(3):209-218.
14. President of Republic of Indonesia. Pharmacy Practice Act, Presidential Decree Num. 51/2009 [in Bahasa Indonesia].
15. Website of WHO. Generic Drugs. Available from <http://www.who.int/trade/glossary/story034/en/index.html>. Accessed 1 March 2013.
16. Lebanova H, Manolov D, Getov I. Patients' attitude about generics—Bulgarian perspective. *Marmara Pharmaceutical Journal* 2012;16:36-40.
17. Harianto, Sabarijah W, Fitri T. [The comparison of the quality and price of generic and non generic Amoxicillin 500 mg in the market]. *Majalah Ilmu Kefarmasian* 2006;3(3):127-142 [in Bahasa Indonesia]
18. Birkett DJ. Generics-Equal or not?. *Australian Prescriber* 2003;26(4):85-87.
19. McLachlan AJ. Frequently asked questions about Generic Medicines. *Australian Prescriber* 2007;30(2):41-43.
20. Searles, A., Jeffreys S, Doran E, Henry DA. Reference pricing, generic drugs and proposed changes to the Pharmaceutical Benefits Scheme. *Medical Journal of Australia* 2007;187(4):236-239.
21. Chong CP, Geoff M, Alice C, Andrew G, Mohamed AH, Mohd Baidi. A Web-Based Survey on Australian Community Pharmacists' Perceptions and Practices of Generic Substitution. *Journal of Generic Medicines* 2010;7(4):342-353.
22. Ministry of Health Republic of Indonesia. The Amendment of the Decree Num.: 068/MENKES/SK/II/2010, the labelling regulation of generic drugs Num.: 314/MENKES/SK/V/2006 [in Bahasa Indonesia].

AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests.



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KOMISI ETIKA PENELITIAN
KETERANGAN KELAIKAN ETIK
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Panitia Kelaikan Etik Penelitian Lembaga Penelitian dan Pengabdian Kepada Masyarakat Universitas Airlangga, setelah mempelajari dan mengkaji secara seksama rancangan penelitian yang diusulkan, maka dengan ini menyatakan bahwa proposal yang berjudul :

**"Profil Keinginan Pasien Untuk Menggunakan Obat Generik
Dalam Pelayanan Obat Dengan Resep"**

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