



## **Evaluating Physician' Perceptions Regarding Generic Medicines in Riyadh**

**Bader F. Al- Shabrain<sup>1</sup>, Salah G .mojali<sup>1</sup>**

*1. Department of Health Administration College of Business Administration King Saud University, Riyadh, Kingdom of Saudi Arabia*

---

### **ABSTRACT**

The aim of this study is to assess the physicians' perceptions and practices on the use of generic medicines, also assess main influencers affecting the perception and the attitude of the physicians to enhance generic medicine in Riyadh region. Questionnaires are used to collect information from physicians from different settings in Riyadh region. Using a random sample, Data are analyzed by using descriptive analysis. Results 59.4% of physicians supported the uses of generic medications in all cases, 21.9% of them supported the generic medications in most cases and 18.8% of them don't support the generic medications. The causes that prevents the use of the generic medicines as reported by participants were Lack of knowledge among consumers about generic medicine, absence of awareness of consumers about the use of generic medicines and the participants reported the causes preventing the uses of the generic medicines were "less money will be used for research and development of new pharmaceuticals". The Majority of the participants talking with their patients about generic medicines by discussing the suitable use and side effects of prescription drugs. Also by using the lower cost of generic medicines. The majority supports alternative generic medicines. There are critical factors that supported recommendation of generic medicine.

**Keywords:** Cost, Drugs, generic medicine

---

\*Corresponding Author Email: [bfshabrain@gmail.com](mailto:bfshabrain@gmail.com)

Received 17 November 2014, Accepted 25 November 2014

---

Please cite this article as: Al-Shabrain BF *et al.*, Evaluating physician' perceptions regarding generic medicines in Riyadh. American Journal of Pharmacy & Health Research 2014.

## INTRODUCTION

Generic medicines are mostly less expensive than the branded medicines and can probably recommend savings and release finances that can be better used in another place. The use of generics has become an challenge in most of healthcare systems. In recent years, using of generic medicines has been progressively increasing internationally as a result of economic demands on medicines from hospitals and other medical facilities that effect on total budgets. In Malaysia, the savings that can be achieved by consumers when adopting generics had been quoted around 60.4%. In many countries around the world, the practice of generic medicines prescribing and substitution is strongly supported by health authorities. Physicians in Malaysia play a vital role in promoting and implementing the practice of generic prescribing and substitution<sup>1</sup> In Saudi Arabia, the use of generic medicines has become a common practice, but this style has not been assessed yet, although the continuous increase in pharmaceutical spending and the supply side measures (supply – demand) taken to control costs, a pharmaceutical rules focused on the improvement of generics market has never been implemented. A large number of evidence suggested the significance of generic medicine utilization as a measure to improve cost and healthcare budgets (AL-GEDADI, 2008). Discussion between physician and patient in some countries may play an important role in medicine choice, patients commonly do not discuss with their physicians about out-of-pocket costs of prescription and medication selected. On the other hand we should know the physicians<sup>2</sup> perceptions regarding the quality and efficacy of generics which may help recognizing possible barriers to greater generic medication use. The purpose of this study is multi-faceted. The researcher want to identify the physicians perceptions and practices on the using of generic medicines in Riyadh region and also aimed to assess Saudi consumers<sup>2</sup> awareness of generic medicines and their willingness to using them and the causes behind their choice from the physician perspectives.

### **The objectives of this research are**

Investigate the role of physician to enhance use generic medicines and rising consciousness in the community.

### **Research Questions**

This study seeks to resolve the following research questions:

- What are the current physician's perspectives on branded versus generic medicines quality and risks?

- What are the main influencers affecting the perception and the attitude of the physicians to enhance generic medicine?

### **Variables definition**

#### **Branded (Brand-name) drug product**

A brand name drug is a drug marketed under a proprietary, trademark-protected name (FDA, 2010).

#### **Generic medicines product**

A generic medicines is the same as a brand name medicines in dosage, safety, strength, how it is taken, quality, performance, and intended use based on evaluations of substitutability, or "therapeutic equivalence," on scientific evaluations. By law, a generic drug product must contain the identical amounts of the same active ingredient(s) as the brand name product and are expected to have equal effect and no difference when substituted for the brand name product (U.S. Department of Health & Human Services)

### **background**

“Health care expenditure on drug is rising in most health care systems in the world. There has been a steady 7% yearly increase in the cost of prescribed drugs in Slovenia over last years. which is a common problem in most of the countries”. (Kersnik & Peklar 2006). The physicians attitude towards generic medicines depends on the features of product, namely the therapeutic categories and dosage form complexity. The attitudes also varied due to different physicians practice characteristics. Physicians who worked alone had an distaste to generic prescribing. The physicians with higher number of years’ experience in generic practicing were more inclined to prescribe brand names. The sampling in the study restricted to a small geographic area, sampling technique (convenience sampling) and small sample size<sup>1</sup>.

### **Advantages and Disadvantages of Prescribing Generic Medicines**

#### **Advantages of Generic Medicines**

In most countries the generic product which is produced by different pharmaceutical companies has the same name, while the brand name produced by the same company may differ from country to country. An example for this is Paxil and Seroxat (both are brand names for the same product and produced by GSK). The first one is available in USA while the other is used throughout the rest of the world. The generic for this product is Paroxetine. It is produced by many companies and available in many countries under the same name and is well known by the healthcare professionals as an antidepressant. This helps in avoiding confusion. (Besag, 2000). Physician usually keeps one or two generic products for the same brand name. His choice mainly

depends on the quality of the generic and its cost and this will help him to in managing his pharmacy stocks. On the other hand, if each generic has its own trade name, this will force the pharmacists to keep stocks from each brand and they will have no role in choosing the cheapest product or the products which have high quality. (Besag, 2000).

### **Disadvantage of Generic Medicine**

In some cases where the physician and the patient are not aware of changing the prescription from brand to generic or between different generics the change will not be for the patients' benefits and may have some drawbacks even if the cost of the generic is much less than the brand products. Accordingly, the patient and the physician should be notified when the prescription has been changed. The acceptance of both patient and physician for the substitution of the prescription is very important (Kersnik & Peklar 2006).

### **Knowledge and source of information of healthcare professionals**

There are many sources of information regarding the use of generic medicines. These sources may affect the generic market positively or negatively. A survey questionnaire was addressed to medical Doctors and pharmacists. Both groups showed lack of knowledge concerning safety and efficacy of Generic medications used. The physicians perceived generics mainly as a cost saving product to the consumers and the whole society."<sup>1</sup>

### **Promotional activities and marketing strategies of pharmaceutical companies**

In one of the studies, after being asked for their source of information and its credibility, both physicians and pharmacists showed to rely mainly on 2 sources, which are medical journals and active promotion of drug companies. This is through the presence of their medical representatives and generating a series of educational lectures and seminars. Marketing plays a very important role as a source of information to healthcare professionals specially the credible sources. Most of the pharmaceutical companies have a team of medical representatives to promote their products by providing doctors and pharmacists with the necessary information they need in order to use the medicines in the right indications. (Williams & Harriott 2007). While the physicians and pharmacists considered the pharmaceutical companies as the main information sources, "Most of the patients who understood the term generic indicated that physicians and pharmacists were their most credible source of information." (Williams & Harriott 2007). This indicates that the role of pharmacists and physicians is very important in convincing the patient to accept generic drugs if the patient knows this term. That is why pharmaceutical companies focus their efforts on promoting their products to health care professionals. In a study conducted in Malaysia in 2007, more than 50% of the recent

pharmacists of the responders highlighted the importance of the bonuses given by the pharmaceutical companies as it will influence their preferences when they select certain brand because this will improve their profit margin. Also one third of the responders of pre-graduated pharmacists highlighted the importance of advertisements done by drug companies that it may influence the habits in dispensing specific brands.(Hassali *et. Al*, 2007).

### Price of Generics and Expected Saving

In Australia where the physicians were encouraged dispensing generic drugs in order to decrease the health care system expenditure. Prescribing drugs by generic name and encouraging physicians to dispense prescriptions with generic medicines, is one frequently suggested means for lowering the costs of healthcare.”(Hassali & Kong 2006, pp. 780). Another way to minimizing expenditure of drugs could happen when applying contracts highlighting the use of generic medications.(Kersnik & Peklar 2006,). In addition to the above two ways to reduce the expenditure in the healthcare, Slovene General Physicians have enough awareness about the costs and showed to be in favor of prescribing and switching to generics of lower prices if it's 25 to 35% less than the brand names.(Kersnik & Peklar 2006). Certain countries like the US, Germany, Brazil and Philippine are free market pricing and the prices of the generics ranged between 30% to 80% less than the brands while the percentage of generic penetration differs from 15% in Philippine to almost 40% in Germany and US. .(Hassali & Kong 2006).

**Give number to these ref**

### Summary

From the above review:

1-They attract customers by making drugs that are available at lower prices for the same indications. Overall, medicine prices have decreased due to introduction of the cheaper generics.  
2-Generic medication has several advantages over brand ones. Generics have the same name even if produced by several companies, whereas brand ones can have several names for the same product depending on the region it's sold in. This means they cause less confusion. Marketing strategies and promotional activities have a positive effect on physicians' attitude in dispensing generics. physicians' and Pharmacists' main source of information was found to be medical journals and promotion of the drug companies (through medical representatives, educational lectures, and seminars). This promotional activity is extremely important as it showed that

consumers take pharmacists and physicians as their credible source of information and therefore affected by their perception.

3-They were now also able to substitute brands, provided that both the physician and the consumer are aware of this change and that the physician has not prohibited this change.

4-Consumers mainly purchase generics due to the huge price difference especially if they have no insurance. However there's an argument that short term cost effectiveness may be opposed by long term costs due to relapse and adverse effects.

5-Physician prefer generics due to higher profit margins, and to decrease expenditure to the healthcare system.

## MATERIALS AND METHOD

### Population and Sampling

This cross-sectional survey was conducted among physicians from different settings in Riyadh hospitals during MARCH & APRIL 2014. The sampled physicians included primary health care, hospital, as well as private practitioners. The sample size was estimated to assess the perceptions and attitudes of physicians towards generic drug prescribing, The required sample size was 100 physicians. The rate of participation was good compared to other studies 88% physicians were selected from primary health care centers, governmental hospitals and private sectors. The researcher use the simple random method.

### Measures

**Questions are:** A questionnaire was designed to elicit the perception, attitude and behavior in relation to generic prescribing. The questionnaire composed of three parts.

1-Part one collects data on participant's demographic and background characteristics. This covered Sex, age in years, nationality and Years of experience.

2-Part two assess the attitude and perceptions of physicians towards generic medicines prescribing. This included 12 statements on prescribing attitude.

3-Part three evaluate how often the participants talk with their patient about generic medicines in light of their experiences, the cost as well as the appropriate use and side effects.

### Validity and reliability:

To assure the validity, the following procedures were conducted, first review was made of the relevant literature. and the previous instrument were examined to develop drafts, secondly given questionnaire to professors of the health care administrator.

### Table 1:Reliability Statistics

Cronbach's Alpha	N of Items
843	15

### Research design

This explorative Descriptive study conducted in many hospitals in Riyadh (private and government ) to assess the evaluating physician perceptions regarding generic medicines .

### Procedures

The questionnaire was distributed by ordinary and electronic mail and by personal contact. The sample was a stratified sample to ensure representation of physicians from different settings and affiliations. Perception and attitude domains have response categories on Likert scale: 5=strongly agree, 4=Agree, 3=neither disagree nor agree, 2=Disagree, 1= Strongly disagreed. The questionnaire was distributed by ordinary and electronic mail and by personal contact. The sample was a stratified sample to ensure representation of physicians from different settings and affiliations. Data were collected between MARCH & APRIL 2014. The response rate to the questionnaire was 88% (88 of 100) governmental physicians were more likely to see more than 100 patients in a typical week compared with hospital and private physicians (92%, 45%, 25%, respectively, P<.05).

### Statistical treatment:

The data gathered were evaluated and went through statistical analysis. The data were also analyzed by using SPSS version 20.

## RESULTS AND DISCUSSION

**Table 2: Socio-demographic data**

	Variables level	Frequency	%
Type of hospitals	Government	49	56.2
	Private	39	43.8
	Total	88	100.0
Gender	Male	66	75.0
	Female	22	25.0
	Total	88	100.0
Nationality	Saudi	47	53.1
	Non Saudi	41	46.9
	Total	88	100.0
Age	20-30 y	16	18.8
	31-40y	47	53.1
	41-50y	25	28.1
	Total	88	100.0
Years' experience	0-10	30	34.4
	11-20	33	37.5

21-30	25	28.1
Total	88	100.0

56% of the participants from the governmental hospitals 75% of the physicians in this study are male. 53.1% Saudi, 53.1% from the age 31-40 years.37.5% of the participants experience from the 0-10 years.

**Table 3: Perception and attitude of physician towards generic medicines**

Statements	Frequency	Percent
Not support the generic medicine	17	18.8
Support the generic medicine in most cases	19	21.9
Support the generic medicine in all cases	52	59.4
Total	88	100.0

We can see from the above table (3) 59.4% percent of physicians reported that they are supported the generic medications in all cases, and 21.9% of them supported the generic medications in most cases, and 18.8% of them don't support the generic medications.

**Table 4: Causes behind Support the generic medicine in all cases or some cases**

Statements	N	Mean	Std. Deviation
Lack information and knowledge of consumers about generic medicine	88	4.65	.588
Make an informed choice about allowing substitution of generic medicines for a brand name.	88	4.53	.660
The price difference between generic and brand name medicines is often so great I feel must prescribe generic substitutes	88	4.50	.503
All products approved by Saudi food and drug authority as generic medicines can be considered therapeutically equivalent with brand name products	88	4.36	.912
I willingly support generic substitution for brand name prescription products	88	4.30	.628
Talk to my patients about the therapeutic value of a generic drug.	88	4.26	.750
In order to keep patients, I have to support generic substitution	88	4.17	.861
Most brand name medicines and their generic alternatives are equally effective	88	3.94	.963
There are some medicines with narrow therapeutic indices that should not be substituted even when required by third parties .	88	3.69	.876
Total	88		

We can see from the above table (4) that the participants vary in responding to the causes support the uses of the generic medicines with the mean range from  $\mu = 4.65$  to  $\mu = 3.69$ .

**Table 5: Causes prevent or inhibiting uses of the generic drugs**

Statements	N	Mean	Std. Deviation
As widely benefit of using of generic medicine is less money that will be used for pharmaceutical research and develop new products.	88	4.47	502
law rules and lawsuits is main reason to minor prescribe generic medicine	88	4.39	615

Decrease of effectiveness of treatment is major problem related to generic medicine	88	4.33	620
Total	88		

From table (5) above response of participants is differ regarding to the causes prevent the uses of the generic medicines with the mean range from  $\mu= 4.47$  to  $\mu= 3.33$ .

### Part3: In your opinion please indicate how often do you talk with your patient about using generic medicines

**Table 6: Descriptive Statistics**

Statements	N	Mean	Std. Deviation
The suitable use and side effects of generic medicines	88	4.31	.511
The price of generic medicines	88	4.31	.701
experience of patients with generic medicines	88	4.10	.662
Total	88		

From the table (6) above response of the participants about the talking with the patients regarding the generic medicines and how support the uses of the generic medicines with the mean range from  $\mu= 4.31$  to  $\mu= 4.10$ .

## RESULTS AND DISCUSSION

More than two third of physicians reported that they are supported the generic medications in all cases, and in most cases, and less than one third of them don't support the generic medications.

The participants vary in responding to the causes support the uses of the generic medicines with the mean range from  $\mu= 4.65$  to  $\mu= 3.69$ . The highest mean range was for Lack information and knowledge of consumers about generic medicine which support the physician, so we must support the patient education from the providers regarding the generic and the brand medicines (AL-Gedai 2008), also The price difference between generic and brand name drugs is often so great physician feel must prescribe generic substitutes to prescribe the generic medicines, this result is in agreement with the previous reported of (Al-jazairi, 2008), also the physician report that All products approved by Saudi food and drug authority as generic medicines can be considered therapeutically equivalent with brand name products, also Most brand name medicines and their generic alternatives are equally effective. On the other hand, the lowest mean for some medicine that is required by third parties for prescribing. The participants vary in responding to the causes prevent the uses of the generic medicines with the mean range from  $\mu= 4.47$  to  $\mu= 3.33$ . The highest mean range was for as widely benefit of using of generic medicine is less money that will be used for pharmaceutical research and developing a new products. also, the lowest mean for decrease of effectiveness of treatment is major problem related to generic medicine, this results differ from the study which is report the pharmacist lack the confidence

with the generic medicines (HAassali, 2012). The participants in responding to the perception regarding talking with the patients about the generic medicines to support the uses of the generic medicines with the mean range from  $\mu= 4.31$  to  $\mu= 4.10$ . The highest mean range was for the suitable use and side effects of generic medicines, On the other hand, the lowest mean for experience of patients with generic medicines.

## CONCLUSION

The findings of this study indicate that physicians sometimes may encountered by multiple and competing forces to prescribe either brand name or generic drugs. Also in this study, the majority of physicians support generic drug replacement. Some forces Supporting generic prescription by take account of physician knowledge about generic drug effectiveness and price differences, a positive impact among physicians towards generic medicines, the influence of patients on prescribing generic medicines and the government play important role in supporting generic prescription. Factors that play negative role against generic prescription include the power and pressure of the brand name drug companies, the use of drugs with a narrow therapeutic index according to view of some physicians and government rules in some countries .

## Limitation

- Further studies are needed to explore situations and factors where switching from brand to generic drugs may not be advised.
- Another limitation related to methodology used in this study, questionnaire used is not the best data collection tool.
- Time limits for conducting such type of research.
- Further study to explain the role of ministry of health and other private organizations about support using generic medicines .
- The study sample is small (88 physicians), further study should include more physicians.

## Recommendations

This study has several suggestions that are drawn from the above figures and results, which are:

- Encourage awareness and knowledge of patient to using generic medicines.
- Work sessions and workshops for the study of alternative medicine topics.
- Implementation research studies which is discuss using generic medicines in all Saudi Arabia.

## REFERENCES

1. Azmi Hassali M, Kong D, Stewart K. Generic medicines: Perceptions of general practitioners in Melbourne, Australia. *Journal Of Generic Medicines* [serial online]. April 2006;3(3):214-225. Available from: Academic Search Complete, Ipswich, MA. Accessed November 17, 2014.
2. Andermann, F., Duh, M.S., Gosselin, A., and Paradis, P.E. Compulsory Generic Switching of Antiepileptic Drugs: High Switchback Rates to Branded Compounds Compared With Other Drug Classes. November 17,2014
3. Bhosle, M., Balkrishnan, R., Dewan, T., Yelverton, C.B., and Feldman, S.R. The rise of the generic drug market and its implications for Dermatology. *Journal of Dermatological Treatment* . October 2005
4. Rosenthal, Meredith B., Ernst R. Berndt, Julie M. Donohue, Richard G. Frank, and Arnold M. Epstein (February 14, 2002). "Promotion of Prescription Drugs to Consumers," *New England Journal of Medicine*, 346(7):498-505.
5. Emerton D. Patent expiries in the US statin market: Generics to slash market size by 80 per cent over the next ten years. *Journal Of Generic Medicines* [serial online]. October 2006;4(1):73-78. Available from: Academic Search Complete, Ipswich, MA. Accessed November 17, 2014.
6. Food and Drug Administration (FDA). (2010). *Drugs@FDA Glossary of Terms*. Retrieved from: <http://www.fda.gov/Drugs/InformationOnDrugs/ucm079436.htm>
7. Himmel W, Simmenroth-Nayda A, Hummers-Pradier E, et al. What do primary care patients think about generic drugs?. *International Journal Of Clinical Pharmacology and Therapeutics* [serial online]. October 2005;43(10):472-479. Available from: MEDLINE Complete, Ipswich, MA. Accessed November 17, 2014.
8. U.S. Department of Health & Human Services
9. Karwal V. The changing competitive landscape in the global generics market: Threat or opportunity? *Journal Of Generic Medicines* [serial online]. July 2006;3(4):269-279. Available from: Academic Search Complete, Ipswich, MA. Accessed November 17, 2014.
10. Saudi Drug and Food Authority. <http://www.sfda.gov.sa/En/home/news/homenews20-2-2007e1.htm> (accessed on December 3, 2013)
11. Saudi Ministry of Health. *Statistics Book Year 2006*. Available at <http://www.moh.gov.sa/statistics/index.html> (accessed January 28, 2008)

12. Simoens S, De Coster S. Sustaining generic medicines markets in Europe. *Journal Of Generic Medicines* [serial online]. July 2006;3(4):257-268. Available from: Academic Search Complete, Ipswich, MA. Accessed November 17, 2014.
13. Tarn D. Physician Communication about the Cost and Acquisition of Newly Prescribed Medications. *Medical Benefits* [serial online]. December 15, 2006; 23(23):4-5. Available from: Business Source Complete, Ipswich, MA. Accessed November 17, 2014.



***AJPHR is***  
**Peer-reviewed**  
**monthly**  
**Rapid publication**  
**Submit your next manuscript at**  
**[editor@ajphr.com](mailto:editor@ajphr.com) / [editor.ajphr@gmail.com](mailto:editor.ajphr@gmail.com)**