

## KNOWLEDGE, ATTITUDE AND PRACTICES ABOUT GENERIC MEDICINES AMONG DOCTORS IN A TERTIARY CARE HOSPITAL OF NORTH INDIA- A CROSS-SECTIONAL STUDY

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### ABSTRACT

**Background:** The assessment of doctors' perceptions and understanding about generic medicines may help in recognizing possible barriers to greater generic medicine usage. The primary objective of this study was to explore the knowledge, attitude, and practice (KAP) of doctors toward generic medicines. **Methods:** A questionnaire based cross-sectional study was carried out in a tertiary-care teaching hospital of Jammu. The questionnaire was designed to assess the KAP about generic medicines. The doctors working in this institute during the study period were included. **Results:** All the participants had fair idea about generic medicines and Jan Aushadi scheme, maximum (92.7%) of them knew about the Jan Aushadi store near the hospital. 90.9% of the participants had knowledge about the cost of generic medicine. Only 72.7% knew about the bioequivalence studies being conducted. Only 36.36% of the doctors had an attitude that generic medicine should be prescribed over branded medicine. No one among the participants had an attitude that generic medicines are for poor. 97.2% of the participants were of the attitude that continuous monitoring should be done to see the efficacy and safety of generic medicines. 99% of the doctors said that they prescribe generic medicines, 18.18% of them used to read articles comparing efficacy and safety of generic and branded medicines. **Conclusion:** The study showed that the doctors were well aware of generic medicines and Jan Aushadi scheme of Govt. of India. It was also observed that efficacy, safety and quality profile of the medicine were the most important factors considered by doctors when they prescribe drugs.

**KEYWORDS:** Attitude, Generic medicine, Knowledge, Practice.

### INTRODUCTION

Health problems and cost associated with its management has been a major concern in modern era. In developing countries many people cannot afford proper treatment for health issues properly at good setup due to non affordability of treatment.<sup>[1]</sup> According to WHO, about 80% of total health care expenses are shared by out of pocket payments.<sup>[2]</sup> Many factors may be responsible for it. It can be due to commercial approach of drug prescriber, lack of knowledge to patient and is attendants, prescribing of irrational, branded and expensive drugs.<sup>[3]</sup> This can be taken care of by application of many measures like substitution of branded drugs by generic drugs, ordering only the important investigations, providing health insurance to the residents of the country and strengthening of health care system.<sup>[4]</sup> The US Food and Drug Administration (FDA) defines generic drug as "a drug product that should have the same active ingredient, strength, dosage form, route of administration, quality, performance, characteristics and intended use as the brand-name drug".<sup>[5]</sup> As a developing nation like India needs to cater a big population with limited health care resources, use

of generic medicines can solve the purpose without negatively affecting the quality of health care.<sup>[6]</sup> For this purpose, there should be proper knowledge of generic medicines and its availability near by the health care facility to the doctor, pharmacist and the patient also. The negative viewpoint of the doctors may prove to be a hurdle in prescription of generic drugs. Many doctors favour prescription of branded drugs over generic drugs. The reason may be the efficacy and safety of the drug.<sup>[7,8]</sup> Suitable laws should be framed for compounding of proper generic medicine having efficacy and safety equal to that of branded drugs with a strict vigil on the cost of the generic medicine.<sup>[9]</sup> The factors responsible for an inhibition on the part of doctors to prescribe generic drugs should be sorted out. This study was carried out among doctors to assess the knowledge, attitude and practices about generic medicines in a tertiary care institution of North India as review of literature could not cite such studies in this part of India.

### MATERIALS AND METHODS

The present study was conducted in a tertiary care centre of India, Govt. Medical College Jammu after taking

permission from Institutional Ethics Committee GMC Jammu. The nature and the purpose of study was explained. The study was carried out for a week in December 2019.

**Inclusion Criteria-** Doctors willing to participate and those who returned the questionnarrie within the stipulated time period.

**Exclusion Criteria-** Doctors not willing to participate and those who did not return the questionnarrie within the stipulated time period.

Informed consent was taken. A prevalidated questionnarrie was framed in English language as it was known to all to assess knowledge, attitude and practices about generic medicines. The participants were handedover questionnarrie and was collected lateron as some of them were busy in respective OPDs and wards. It was collected after 2 hours.

The data was compiled and was tabulated.

## RESULTS

**Table 1: Knowledge regarding generic medicines.**

Questions regarding knowledge	Yes N(%)	No N (%)
Do you have an idea about generic medicine	110(100)	0
Do you know about Jan Aushadi scheme	110(100)	0
Do you know about bioequivalence studies being conducted for generic and branded drugs	80 (72.7)	30(27.2)
Do you know about cost of generic medicines	100(90.9)	10(9.09)
Do you know about availability of generic medicine in Jan Aushadi store near this hospital	102(92.7)	8(7.27)
Do you know about efficacy and safety of generic and branded drugs If yes, which is more safe and efficacious	60(54.54)	40(36.36)
Branded	50(83.3)	
Generic	10(16.6)	
Do you have an idea about rule regarding prescription of generic drugs	10(9.09)	100(90.9)

**Table 2: Attitude regarding prescription of generic medicines.**

Questions regarding attitude	YES N(%)	NO N (%)
Generic drugs should be prescribed over branded	40(36.36)	70(63.63)
Rules should be framed against use of branded drugs	22(20)	88(80)
Generic drugs are for poor people	0	110(100)
Patient should have the liberty to choose generic drugs or branded drugs	100(90.09)	10(9.09)
Generic drugs should be taught well in medical studies	110(100)	0
Continuous monitoring should be carried out to see the efficacy and safety of generic drugs	107(97.2)	3(2.7)
Doctors should be given incentives for prescribing generic drugs	0	110(100)
More generic drugs should be available in Jan Aushadi store near GMC	110(100)	0
More Jan Aushadi stores should be opened near medical college	110(100)	0

**Table 3: Questions regarding practice about generic medicines.**

Questions regarding practice	Yes N(%)	No N (%)
Do you prescribe generic medicine	109(99)	2(1)
Do you read articles about comparison of efficacy and safety of generic medicines and branded medicines	20(18.18)	90(81.8)
Do you use generic medicines yourself	37(33.6)	73(66.3)
Have you noticed that switching over branded drugs to generics affect the therapeutic efficacy	85(77.2)	25(22.7)
Have you ever visited Jan Aushadi store near your college to enquire about availability of drugs you prescribe	5(4.54)	105(95.4)
Have you attended any seminar or CME on generic drugs	10(9.09)	100(90.9)

A total of 120 participants were included in the study out of which 10 failed to return the filled questionnarrie and were hence excluded from the study. All the participants had fair idea about generic medicines and

Jan Aushadi scheme, maximum (92.7%) of them knew about the Jan Aushadi store near the hospital. 90.9% of the participants had knowledge about the cost of generic medicine. Only 72.7% knew about the bioequivalence

studies being conducted. 54.54% of the doctors had an idea about the efficacy and safety of generic and branded drugs. Maximum of them said that branded drugs are more efficacious and safe. Only 9.09% of them had an idea about the rule regarding prescription of generic drugs to be mandatory for all the doctors. (Table 1) Only 36.36% of the doctors had an attitude that generic medicine should be prescribed over branded medicine. 20% of them had an idea that rules should be framed against use of generic drugs. This may be due to low therapeutic efficacy as many generic medicines do not have equal bioavailability as that of branded drugs leading to therapeutic failure and disappointment to the prescribing practitioner. No one among the participants had an attitude that generic medicines are for poor. All of them thought that generic medicines should be taught well during MBBS 97.2% of the participants were of the attitude that continuous monitoring should be done to see the efficacy and safety of generic medicines. All the doctors were of the view that more generic drugs should be made available and more Jan Aushadi stores should be opened near our college. (Table 2) 99% of the doctors said that they prescribe generic medicines, 18.18% of them used to read articles comparing efficacy and safety of generic and branded medicines. Only 33.6% of the doctors had used generic medicines themselves. Maximum of them told that switching over from branded to generic drugs lower the therapeutic efficacy which may lead to treatment failure and low compliance earning a bad name to the prescriber. 95.4% of the doctors had never visited the Jan Aushadi store near hospital. 9.09% of the doctors had attended seminar or CME regarding generic medicines. (Table 3).

## DISCUSSION

All the participants had fair idea about generic medicines and Jan Aushadi scheme, maximum of them knew about the Jan Aushadi store near the hospital. The findings are in consistency with the studies of Gupta SK *et al*, David BM *et al*.<sup>[10,11]</sup>

Only 72.7% knew about the bioequivalence studies being conducted. The findings are similar to the findings of Bhattacharjee *et al*.<sup>[12]</sup> 54.54% of the doctors had an idea about the efficacy and safety of generic and branded drugs. Maximum of them said that branded drugs are more efficacious and safe. Only 9.09% of them had an idea about the rule regarding prescription of generic drugs to be mandatory for all the doctors. This may be due to non implementation of this rule as administrations section is not putting an effort for proper implementation. Only 20% of them had an idea that rules should be framed against use of generic drugs. This may be due to low therapeutic efficacy as many generic medicines do not have equal bioavailability as that of branded drugs leading to therapeutic failure and disappointment to the prescribing practitioner. No one among the participants had an attitude that generic medicines are for poor. All of them thought that generic medicines should be taught well during MBBS and more

thrust should be put upon them in developing countries like India. 97.2% of the participants were of the attitude that continuous monitoring should be done to see the efficacy and safety of generic medicines as companies making them may play with the lives of patients if it is not properly made. The findings are similar to another study.<sup>[13]</sup> All the doctors were of the view that more generic drugs should be made available and more Jan Aushadi stores should be opened near our college. If it is done, more and more patients will be willing to use generic medicines as only one store cannot cater to all the patients and after seeing heavy rush at Jan Aushadi store, most of the patients will prefer using branded drugs from other shops nearby. 99% of the doctors said that they prescribe generic medicines, 18.18% of them used to read articles comparing efficacy and safety of generic and branded medicines. This may be non affordability of time after attending heavy OPDs and wards. Only 33.6% of the doctors had used generic medicines themselves. This less number may be due to low quality of generic medicines. Maximum of them told that switching over from branded to generic drugs lower the therapeutic efficacy which may lead to treatment failure and low compliance earning a bad name to the prescriber. 95.4% of the doctors had never visited the Jan Aushadi store near hospital. 9.09% of the doctors had attended seminar or CME regarding generic medicines. So, there is a need to arrange more CMEs and seminars regarding use of generic medicines.

## CONCLUSION

The present study showed that the doctors have well information regarding generic medicines and Jan Aushadi scheme of Govt. of India. There should be various training programmes to increase the awareness regarding generic medicines among health care professionals and patients. The endeavour should be to educate the doctors early in their career about the advantages of prescribing generic medicines. Proper check should be kept upon by administration for raising the quality of generic medicines.

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