

Pharmacoeconomics: Sensitization of undergraduate medical students

Pharmacoeconomics plays a vital role in the treatment of a disease. Patients are affected by the high prices of medicines. As the symptoms improve, error of compliance sets in, particularly so, if the regimen is heavy on the pocket of the patient.

One of the major causes of the high cost of medicines is prescription by brand names. For some medicines, the difference in cost between the branded and generic product varies from less than twofold to more than 100-fold.^[1] The overall savings owing to prescribing the least expensive generic preparation has been reported to be approximately 5%. Savings in individual situations can be very much higher. Generic names are also less confusing.^[2]

In the "therapeutic jungle", the prescriber can help the society by using generic names while prescribing.^[2] However, prescribers often do not follow this and even prescribe branded medicines over-enthusiastically. Health professionals have an important role to play in promoting quality use of medicines through good treatment choices and good communication with the patients by explaining to them about the low cost generic medicines.^[3] The doctors, therefore, must be trained during the formative years of their learning, so that they are not allured by the marketing gimmicks of pharmaceutical companies and develop a habit of prescribing by generic names. We tried this by sensitizing the students of second year professional MBBS course.

The present students were first given the concept of generic and branded medicines. They were asked to collect the prices of the same medicine in branded and generic form for some common ailments such as rhinitis, insomnia, anxiety, diabetes, low backache, fever, diarrhea, acid peptic disease and upper respiratory tract infection with the help of institu-

tional pharmacist. Percentage difference in the cost of the two was calculated and the drug compliance in view of the difference in cost was discussed with the medical students.

It was noticed that all branded medicines were higher priced as compared to their generic alternatives (Table 1). Approximately a 3 to 4 times increase was observed. It was found that many times chemists did not give the specific generic medicine, which was asked for and tried to give a substitute branded medicine, giving the reason of non-availability. Sometimes, the locally manufactured alternative was given. Obviously, such indulgence resulted in some economic gains for the seller.

Generic drugs offer major savings in healthcare expenditure because they are substantially lower in price than the branded drugs. It is desired that doctors should prescribe the drugs only in the generic form except for conditions where drugs with narrow therapeutic margin are prescribed, for instance, antiepileptics, lithium carbonate, antiarrhythmics.^[4]

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Table 1

Comparative pricing of generic and branded medicines

Generic name	No. of tab	Generic medicine	Price (Rs.)	Branded medicine	Price (Rs.)	% difference in cost
Norfloxacin 400 mg	10	Norfloxacin (Okasa)	27.00	Norflox (Cipla)	47.00	43
Ciprofloxacin 500 mg	10	Neocip (Okasa)	50.00	Ciplox (Cipla)	90.00	44
Ofloxacin 200 mg	10	Ofacin (Okasa)	45.00	Oflox (Protec)	65.00	30
Sparfloxacin	6	Sparcip (Cipla)	50.00	Sparta (Alembic)	60.00	17
Amoxycillin 250 mg	10	Amoxycillin (Cadila)	35.00	Novamox (Cipla)	64.00	45
Paracetamol 500 mg	10	Paracip (Cipla)	5.50	Ultragen (Wyeth)	15.75	65
Diclofenac sodium 50 mg	10	Vova (Alembic)	8.00	Voveran (Novartis)	16.60	52
Omeprazole 20 mg	15	Omisac (Ranbaxy)	47.00	Ocid (Cadila)	64.50	27
Alprazolam 0.25 mg	10	Anaxil (Ranbaxy)	5.00	Anxit (Micro)	10.50	52
Cetirizine 10 mg	10	Cetacip (Cipla)	10.00	Alerid (Cipla)	30.00	66
Chloroquine	10	Maligo (Cipla)	4.50	Lariago (IPCA)	05.90	24
B. Complex	10	Bicomax forte (Nicholas)	7.90	Becosule (Pfizer)	10.50	25
Metformin 500 mg	10	Okamet (Okasa)	7.15	Gluformin (Nicholas)	11.00	35